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Section 1
Introduction

The IntelliKnight 5820 Fire Alarm Control / Communicator is an analog addressable fire control system that meets the requirements of UL 864.

1.1 Overview of Basic System

The IntelliKnight 5820 base system is packaged as an assembled stack of 3 circuit boards mounted to an aluminum housing.

1.1.1 Hardware Features

- The basic IntelliKnight 5820 panel contains one SLC (Signaling Line Circuit) which supports 127 analog addressable devices (points). Additional loops can be added using the Model 5815 SLC Expander to increase overall point capacity to 381 points (127 points per 5815).
- 5.0A of output power is available through 6 sets of terminals for notification and auxiliary applications. Each circuit is power limited per UL 864 and can source up to 3.0A (total output power for all 6 circuits must not exceed 5.0A).
- Built-in dual phone line, digital alarm communicator/transmitter (DACT).
- Dedicated Form C trouble relay.
- Two general purpose Form C programmable relays.
- Basic system operation can be performed using a key or a user code.
- Can be used with up to 8 Model 5860 Remote Annunciators (sold separately).
- Can be used with Model 5865-3, 5865-4, and 5880 in any combination for a total of eight devices on one control panel.
- Printing of detector status, event history, and real time event log available through the Model 5824 Serial / Parallel Interface (sold separately).
- Supports conventional 2-wire & 4-wire detectors using the 6 I/O circuits.
- Add 6 Flexput™ with each 5895 Intelligent Power Module (up to 8 5895s per system).
- 125 software zones, 250 output groups.

1.3 Compatible Products

The chart below lists the products available from Silent Knight for use with the IntelliKnight 5820.

Model	Description
SLC Devices	
SD500-AIM	Contact Monitor Module (switch input). Standard size. (This device replaces Model SD500-FRCM-4. See Note below.)
SD500-MIM	Mini Contact Monitor Module (switch input). Small size. (This device replaces Model SD500-FRCM. See Note below.)
SD500-ARM	Relay Module (This device replaces Model SD505-ARM. See Note below.)
SD505-AHS	Heat Sensor
SD505-AIS	Ionization Smoke Detector
SD505-APS	Photoelectric Smoke Detector
SD505-ADH Duct housing is shipped with a detector base only. Detector head must be ordered separately.	Duct Housing for use with SD505-AIS ionization smoke detector or SD505-APS photoelectric smoke detector head. Intake tubing for duct available in 3 lengths: STS-2.5: Duct widths 1.0’ to 2.5’ STS-2.5: Duct widths 2.5’ to 5.0’ STS-2.5: Duct widths 5.0’ to 10.0’ When ordering SD505-ADH, specify intake tubing size and order the appropriate smoke detector, if needed.
SD500-ANM	Addressable Notification Module
Other Modules	
5815 SLC Expander	Allows an additional 127 SLC devices to be added to the system. Up to two 5815s per system.
5211 Ground Start Relay	For use with ground start telephone network. (Do not use in UL installations.)
5824 Serial/Parallel Interface	Allows a printer to be attached for the system for on-site event logging, detector status and event history reports. Two maximum per system.
5895 Intelligent Power Module	Provides additional power, six I/O circuits, and two Form C relays. Max. 8 per system see *Model 5895 Installation Instructions P/N 151024.*
5860 and 5860R Remote Fire Alarm Annunciator	Same operation, similar appearance as on-board annunciator. Up to 8 5860s per system. 5860 is gray; 5860R is red.
5860TG and 5860TR Trim Ring Kit	Trim ring kits for surface mounting the 5860 annunciator. 5860TG is gray; 5860TR is red.
5865-3 and 5865-4 LED Annunciator	LED annunciator can display up to 30 LEDs (15 red and 15 yellow). 5865-4 has key switches for silence and reset, and a system trouble LED.
5880 LED Driver Module	Driver for up to 40 LEDs. Interfaces with customized annunciator boards. In addition the 5880 has eight generic switch input points.
7860 Telephone Cord	RJ31X cord for connecting phone line to the 5820.
IntelliKnight 5590 Downloading Software	For communication and panel programming with a Windows-based computer and *modem (not sold by Silent Knight, see Table 1-2 for compatible modems). Enables remote viewing of detector status and event history.
IntelliView 5595 Software	For remote viewing of detector status and event history. Requires a modem (not sold by Silent Knight).

Note: Models SD500-FRCM, SD500-FRCM-4 and SD505-ARM are no longer manufactured, but they are still compatible with the IntelliKnight system. Contact Silent Knight if you need information about these modules.

Section 2
Agency Listings, Approvals, and Requirements

2.1 Federal Communications Commission (FCC)

1. The following information must be provided to the telephone company before the IntelliKnight 5820 can be connected to the phone lines:

A	Manufacturer:	Silent Knight Security Systems
B	Model Number:	IntelliKnight 5820
C	FCC registration number:	AC6USA-23901-AL-E
	Ringer equivalence:	0.8B
D	Type of jack:	RJ31X
E	Facility Interface Codes:	Loop Start: 02LS2Ground Start: 02GS2
F	Service Order Code:	9.0F

2. This device may not be directly connected to coin telephone or party line services.
3. This device cannot be adjusted or repaired in the field. In case of trouble with the device, notify the installing company or return to:

   Silent Knight Security Systems
   7550 Meridian Circle
   Maple Grove, MN 55369-4927
   612-493-6455
   800-328-0103

4. If the 5820 causes harm to the telephone network, the telephone company will notify the user in advance that temporary discontinuance of service may be required. If advance notice is not practical, the telephone company will notify the user as soon as possible. Users have the right to file complaints, if necessary, with the Federal Communications Commission.
5. The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice to allow you to make the necessary modifications to maintain uninterrupted service.

Warning

This device has been verified to comply with FCC Rules Part 15. Operation is subject to the following conditions: (1) This device may not cause radio interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Section 3
Before You Begin Installing

This section of the manual is intended to help you plan your tasks to facilitate a smooth installation. Please read this section thoroughly, especially if you are installing a 5820 panel for the first time.

3.1 What's in the Box?

The IntelliKnight 5820 ships with the following hardware:

- A cabinet with all hardware assembled
- Two keys for the front door
- Two keys for user operation of the on-board annunciator (installer operations require the Installer's Code)
- Ten 4.7K ohm end-of-line resistors
- A battery cable for batteries wired in series
- Programming adapter cable used for setting SLC device addresses

3.2 Environmental Specifications

It is important to protect the 5820 control panel from water. To prevent water damage, the following conditions should be AVOIDED when installing the units:

- Do not mount directly on exterior walls, especially masonry walls (condensation)
- Do not mount directly on exterior walls below grade (condensation)
- Protect from plumbing leaks
- Protect from splash caused by sprinkler system inspection ports
- Do not mount in areas with humidity-generating equipment (such as dryers, production machinery)

When selecting a location to mount the 5820 control panel, the unit should be mounted where it will NOT be exposed to temperatures outside the range of 0°C-49°C (32°F-120°F) or humidity outside the range of 10%-85% at 30°C (86°F) noncondensing.

Table 3-1: Terminal Strip Description and Electrical Rating

Terminal # and Label		Description	Rating	
			Voltage	Current
37	Ring	Phone Line 1 Telco Ring	N/A	
38	Tip	Phone Line 1 Telco Tip		
39	Ring	Phone Line 1 Premises Ring		
40	Tip	Phone Line 1 Premises Tip		
41	Ring	Phone Line 2 Telco Ring	N/A	
42	Tip	Phone Line 2 Telco Tip		
43	Ring	Phone Line 2 Premises Ring		
44	Tip	Phone Line 2 Premises Tip		
45	SC-	SLC Programming Terminal (-)	32 VDC	150 mA
46	SC+	SLC Programming Terminal (+)	32 VDC	150 mA

3.4 Wiring Specifications

Induced noise (transfer of electrical energy from one wire to another) can interfere with telephone communication or cause false alarms. To avoid induced noise, follow these guidelines:

- Isolate input wiring from high current output and power wiring. Do not pull one multi-conductor cable for the entire panel. Instead, separate the wiring as follows:

High voltage	AC power, Terminals 1-3
SLC loops	Terminals 33-36
Audio input/output	Phone line circuits, Terminals 37-44
Notification circuits	Terminals 4-15
SBUS	Terminals 16-23
Relay circuits	Terminals 24-32

- Do not pull wires from different groups through the same conduit. If you must run them together, do so for as short a distance as possible or use shielded cable. Connect the shield to earth ground at the panel. You must route high and low voltages separately.
- Route the wiring around the inside perimeter of the cabinet. It should not cross the circuit board where it could induce noise into the sensitive microelectronics or pick up unwanted RF noise from the high speed circuits. See Figure 3-1 for an example.
- High frequency noise, such as that produced by the inductive reactance of a speaker or bell, can also be reduced by running the wire through ferrite shield beads or by wrapping it around a ferrite toroid.

3.5 Board Assembly Diagram

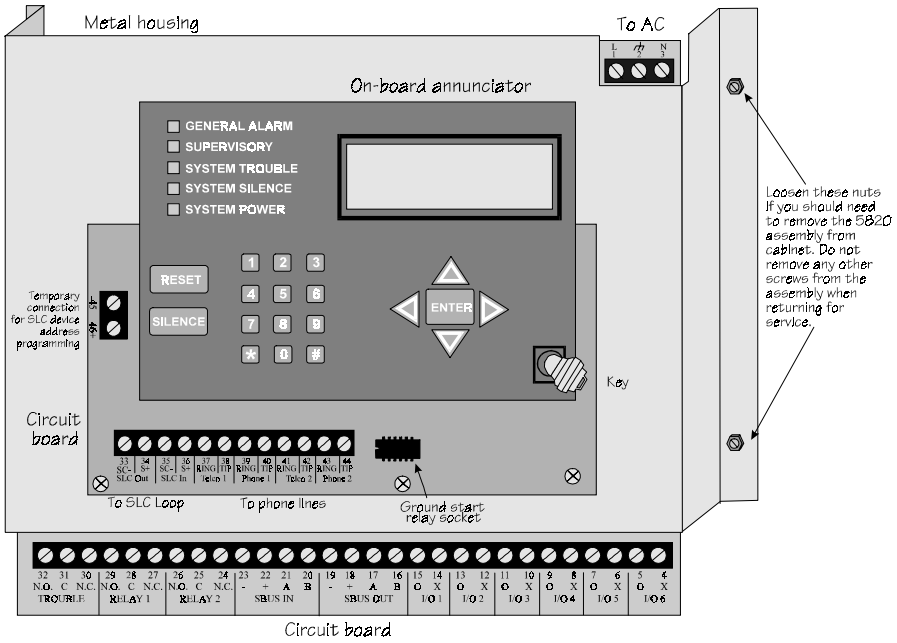


Figure 3-2 Model 5820 Assembly

Figure 3-2 shows the circuit boards, metal housing and annunciator that attach the 5820 assembly to the cabinet. If you should need to remove the board assembly for repair, remove the four mounting nuts which hold the assembly in the cabinet. Then lift the entire assembly out of the cabinet. Do not attempt to remove the circuit boards from the metal bracket.

3.6.2 Current Draw Worksheet

Use the worksheet beginning on the next page to determine current requirements during alarm/battery standby operation. (Copy the page if additional space is required.)

Table 3-2: Current Draw Calculations

	Device	# of Devices	Current per Device	Standby Current	Alarm Current
	For each device use this formula:	This column	X This column =	Current per number of devices.	
	IntelliKnight 5820 Fire Panel (Current draw from battery)	1	Standby: 140 mA	140 mA	
			Alarm: 260 mA		260 mA
	Addressable Devices	(381 max.)	Standby: 0.55 mA	mA	
			Alarm: 0.55 mA		mA
	5815 SLC Expander	(2 max.)	Standby: 55 mA	mA	
			Alarm: 55 mA		mA
	5860 Remote Fire Alarm Annunciator	(8 max.)	Standby: 20 mA	mA	
			Alarm: 25 mA		mA
	5824 Serial / Parallel Module	(2 max.)	Standby: 45 mA	mA	
			Alarm: 45 mA		mA
	5895 IntelliKnight Power Expander	(8 max.)	Standby: 10 mA	mA	
			Alarm: 10 mA		mA
	5865-4 LED Annunciator (with reset and silence switches)	(8 max.)	Standby: 35 mA	mA	
			Alarm: 145 mA		mA
	5865-3 LED Annunciator		Standby: 35 mA	mA	
			Alarm: 145 mA		mA
	5880 Generic LED Driver Module		Standby: 35 mA	mA	
			Alarm: 200 mA		mA
A	**Total 5820 System Current**				
	*Auxiliary Devices	Refer to devices manual for current rating.			
			Alarm/Standby: mA	mA	mA
			Alarm/Standby: mA	mA	mA
			Alarm/Standby: mA	mA	mA
			Alarm/Standby: mA	mA	mA
B	**Auxiliary Devices Current**				
			Alarm: mA		mA
			Alarm: mA		mA
			Alarm: mA		mA
			Alarm: mA		mA
C	**Notification Appliances Current**				mA
D	Total current ratings of all devices in system (line A + line B + C)			mA	mA
E	Total current ratings converted to amperes (line D x .001):			A	A
F	Number of standby hours (24 or 60 for NFPA 72, chapter 1, 1-5.2.5):			H	
G	Multiply lines E and F. **Total standby AH**			AH	
H	Alarm sounding period in hours. (For example, 5 minutes = .0833 hours)				H
I	Multiply lines E and H. **Total alarm AH**				AH
J	**Add lines G and I. **Total ampere hours required**			AH	

* *If you are using door holders, you do not need to consider door holder current for alarm/battery standby, because power is removed during that time. However, during normal operation, door holders draw current and must be included in the 5.0 A total current that can be drawn from the panel.*

** *Use next size battery with capacity greater than required.*

3.7 Installation Tasks Overview

This section of the manual is a chart listing tasks that need to be performed when installing the IntelliKnight 5820 system. The chart is intended to be a handy way for you to make sure you have completed all necessary tasks. Unless noted, these tasks do not have to be performed in the order they are listed here.

Important: Connect and address SLC devices before running JumpStart.

Task	See Sec. (for more info.)
Main Panel Hardware Installation	
❒ Mount 5820 cabinet.	4.1
❒ Connect AC.	4.2
❒ Connect phone lines.	4.11
❒ Install 5815 SLC Expander modules (if needed). Required if more than 127 SLC devices are used.	4.6
❒ Install 5860 Remote Fire Alarm Annunciator modules if used.	4.5
❒ Install 5865 or LED Annunciator modules if used.	4.9
❒ Install 5880 LED Driver Module if customized LED annunciation will be used.	4.8
❒ Install notification appliances.	4.12
❒ Install auxiliary power devices (if used).	4.13
❒ If using a printer, install Model 5824 Serial/Parallel Interface.	4.7
❒ Connect batteries (typically last step).	4.3
SLC Device Hardware Installation **Perform these steps before running JumpStart.**	
❒ Connect device bases to the loop.	5.3
❒ Set device addresses.	5.10
❒ Physically connect detectors to their bases. Connect relay and contact monitor modules.	5.7.2
JumpStart	
JumpStart is for initial system programming. JumpStart automatically selects some options for SLC devices. See “Input Point Configuration” section of this chart for other options. JumpStart makes selections for the following options. You can customize options, if necessary.	See Section 6.1 and 7.6
Device type (detector or switch) configured by JumpStart.	To change, see Sec. 7.4
Program type of detector (heat, photoelectric, or ionization) selected by JumpStart.	To change, see Sec. 7.4
System Software Configuration	
❒ Select low AC hours report time (6 hours by default).	7.5.6.2
❒ Select Auto Test Time (2:00 AM by default).	7.5.1.2
❒ Enable/disable automatic DST adjustment feature (enabled by default).	7.5.6.3

Task	See Sec. (for more info.)
Addressable relay modules	
❒ Assign addressable relay modules to output groups through programming. (JumpStart assigns all relay modules to Group 1.)	7.4
LED output points (from the 5880 LED Driver or 5865/66 LED Annunciator)	
❒ Assign LED modules to output groups through programming.	7.4.3
All output circuits (1-8):	
❒ Disable (set to UNUSED) any unused circuits. If you do not disable unused output circuits, they will cause a trouble condition (unless an EOL resistor is used).	7.4
❒ Select a name for the point, if desired.	7.4
Output Group Configuration	
❒ Add the group to the system if it does not already exist.	7.3.2
❒ Assign output points to the group.	7.4
❒ Program a name (or description) for the group, if desired.	7.3.1.1
Select "group properties" (see below).	
❒ Latching / non-latching	7.3.1
❒ Silencing option	7.3.1
❒ Select options for activation with system switches.	7.3.1
❒ Map zones to output groups that will activate when zone goes into alarm.	7.2.1.3
❒ Select a cadence pattern for outputs in the zone.	7.2.1.3

Section 4
Control Panel Installation

Caution!

To avoid the risk of electrical shock and damage to the unit, power should be OFF at the control panel while installing or servicing.

4.1 Mounting the 5820 Cabinet

Read the environmental specifications in Section 3.2 before mounting the 5820 cabinet. This will ensure that you select a suitable location.

The panel should be accessible to main drop wiring runs. It should be mounted as close to the center of the building as possible and located within a secured area, but should be accessible for testing and service.

Mount the 5820 so it is firmly secured to the wall surface. When mounting on concrete, especially when moisture is expected, attach a piece of 3/4-inch plywood to the concrete surface and then attach the 5820 to the plywood. Also mount any other modules to the plywood.

The 5820 cabinet can be surface- or flush-mounted. If you will be flush-mounting the cabinet, the hole for the enclosure should be 14.75" W x 25" H x 4" D. Do NOT flush-mount in a wall designated as a fire break.

4.1.1 Removing the 5820 Assembly from the Housing

If it should ever be necessary to remove the 5820 assembly from the cabinet for repair, do so by unscrewing the nuts that connect the 5820 assembly to the cabinet. Do not attempt to disassemble the circuit boards. See Section 3.5 for location of the nuts.

4.3 Battery Connection

The 5820 battery charge capacity is 7.0 to 33.0 AH. Use 12V batteries of the same AH rating. Determine the correct AH rating as per your current load calculation (see Section 3.6).

Wire batteries in series to produce a 24-volt equivalent. Do not parallel batteries to increase the AH rating.

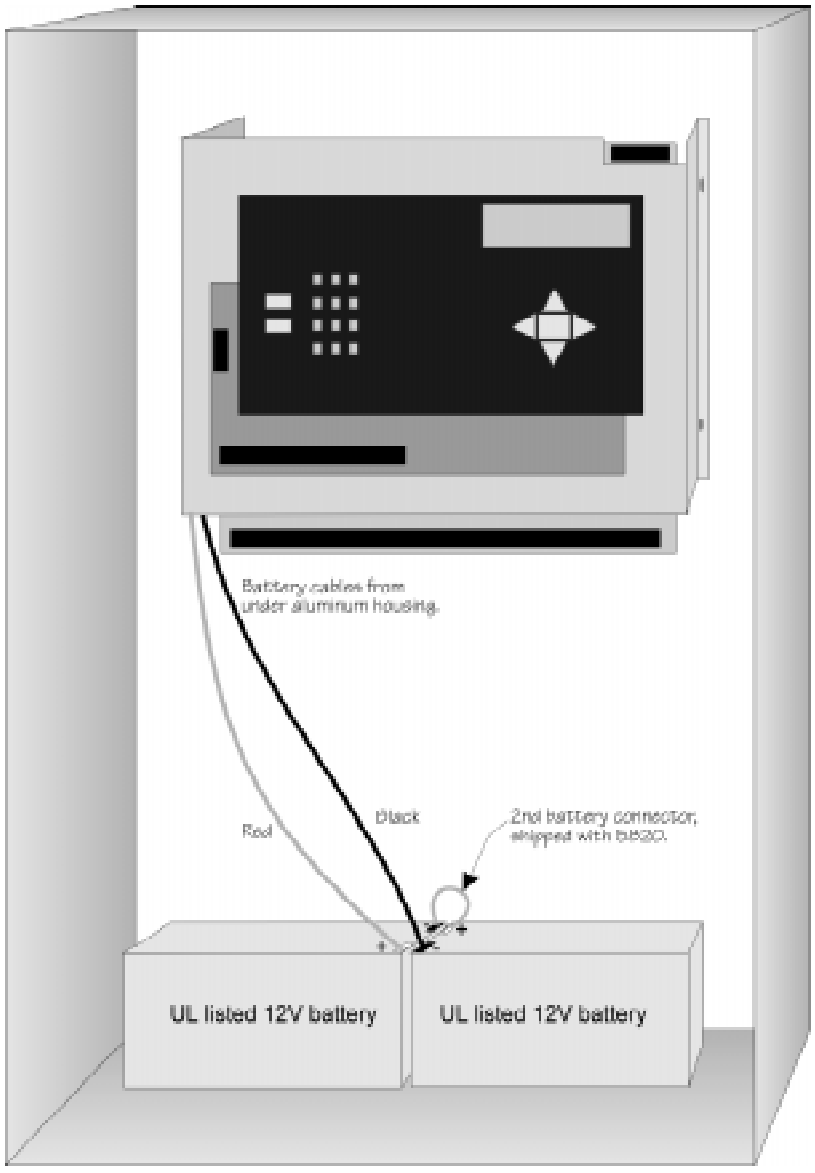


Figure 4-2 Battery Connection

3. Run extended battery cable from 5820 cabinet through conduit to AB-33 cabinet. See Figure 4-5.

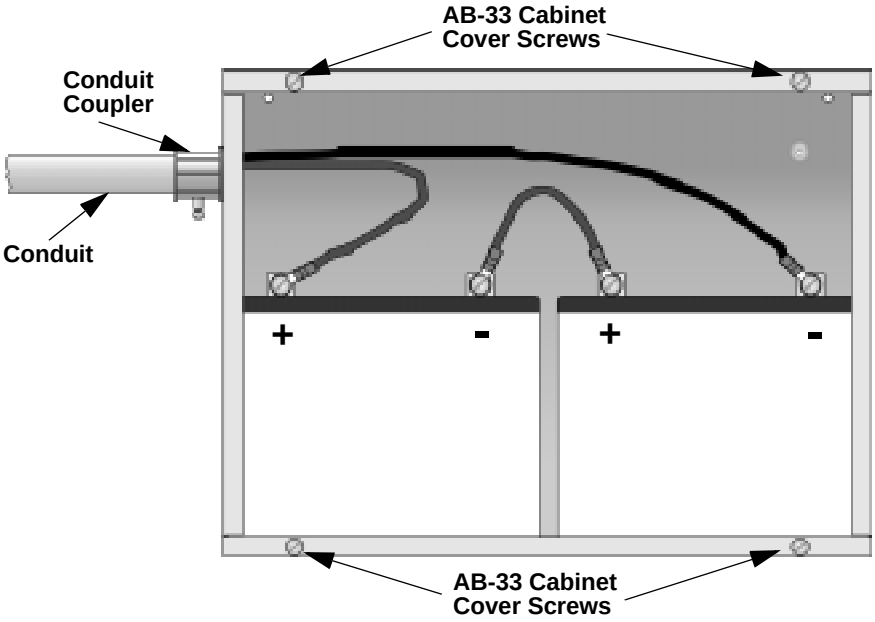


Figure 4-5 Battery Connections in the AB-33 Cabinet

Note: Any one of the cabinet knock-outs (on either the 5820 or the AB-33 cabinet), that are not previously being used may be utilized to connect conduit between the two cabinets.

4. Connect battery leads to the backup battery terminals. See Figure 4-5.

   Observe the proper polarity to prevent damage to the batteries or the control panel.

5. Insert the AB-33 cover screws into the cover mounting holes (see Figure 4-5).

   Screw the cover screw 3/4 of the way into the cover mounting hole.

6. Align the cover plate mounting keyhole over the cover mounting screws. See Figure 4-6.

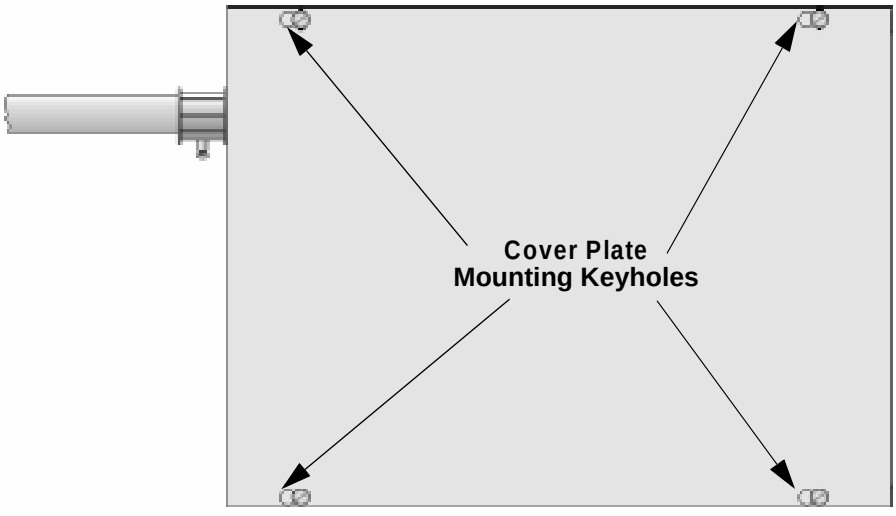


Figure 4-6 Cover Plate Mounting Keyholes and Cover Mounting Screws Alignment

7. Slide the cover into place and tighten the cover mounting screws. See Figure 4-6.

These cases are marked in the chart with an asterisk (*). Maximum length can never be more than 6,000 feet, regardless of gauge used. (The formula used to generate this chart is shown in the note below).

Table 4-1: Wire Distances Per Wire Gauge

Wiring Distance: SBUS Modules to Panel				
Total Worst Case Current Draw (amps)	**22 Gauge**	**18 Gauge**	**16 Gauge**	**14 Gauge**
0.100	1852 ft.	4688 ft.	* 6000 ft.	* 6000 ft.
0.200	926 ft.	2344 ft.	3731 ft.	5906 ft.
0.300	617 ft.	1563 ft.	2488 ft.	3937 ft.
0.400	463 ft.	1172 ft.	1866 ft.	2953 ft.
0.500	370 ft.	938 ft.	1493 ft.	2362 ft.
0.600	309 ft.	781 ft.	1244 ft.	1969 ft.
0.700	265 ft.	670 ft.	1066 ft.	1687 ft.
0.800	231 ft.	586 ft.	933 ft.	1476 ft.
0.900	206 ft.	521 ft.	829 ft.	1312 ft.
1.000 (Max)	185 ft.	469 ft.	746 ft.	1181 ft.

Note: The following formulas were used to generate the wire distance chart:

$$\text{Maximum Resistance (Ohms)} = \frac{6.0 \text{ Volts}}{\text{Total Worst Case Current Draw (amps)}}$$

$$\text{Maximum Wire Length (Feet)} = \frac{\text{Maximum Resistance (Ohms)}}{\text{Rpu}} * 500$$

(6000 feet maximum)

where: Rpu = Ohms per 1000 feet for various Wire Gauges (see table below)

Table 4-2: Typical Wire Resistance Per 1000 ft.

Wire Gauge	Ohms per 1000 feet (Rpu)
22	16.2
18	6.4
16	4.02
14	2.54

4.4.2 Wiring Configurations

Figure 4-7 illustrates Class A wiring configuration and Figure 4-8 illustrates Class B configuration.

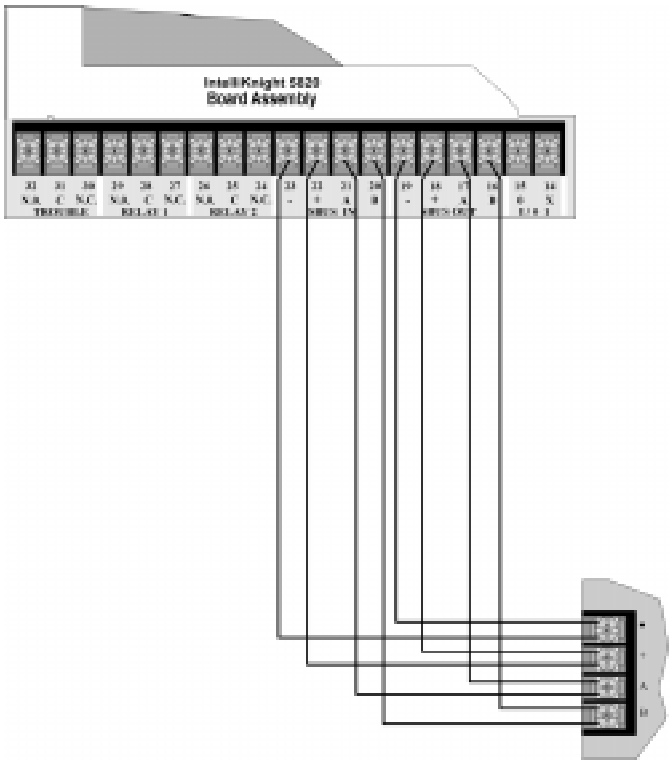


Figure 4-7 SBUS Class A Wiring

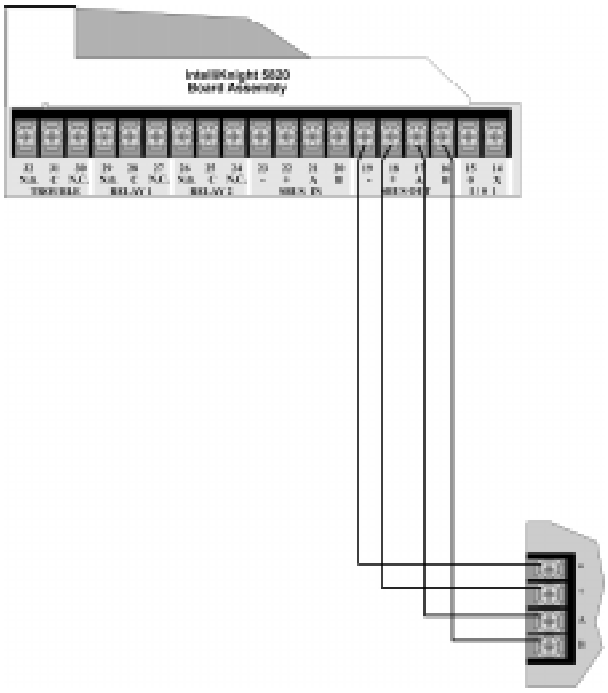


Figure 4-8 SBUS Class B Wiring

4.5.1 Mounting the 5860

This section of the manual describes mounting the remote annunciator. The annunciator can be flush- or surface-mounted.

Figure 4-10 shows the parts of the annunciator. Instructions for disassembling and mounting appear on the following pages.

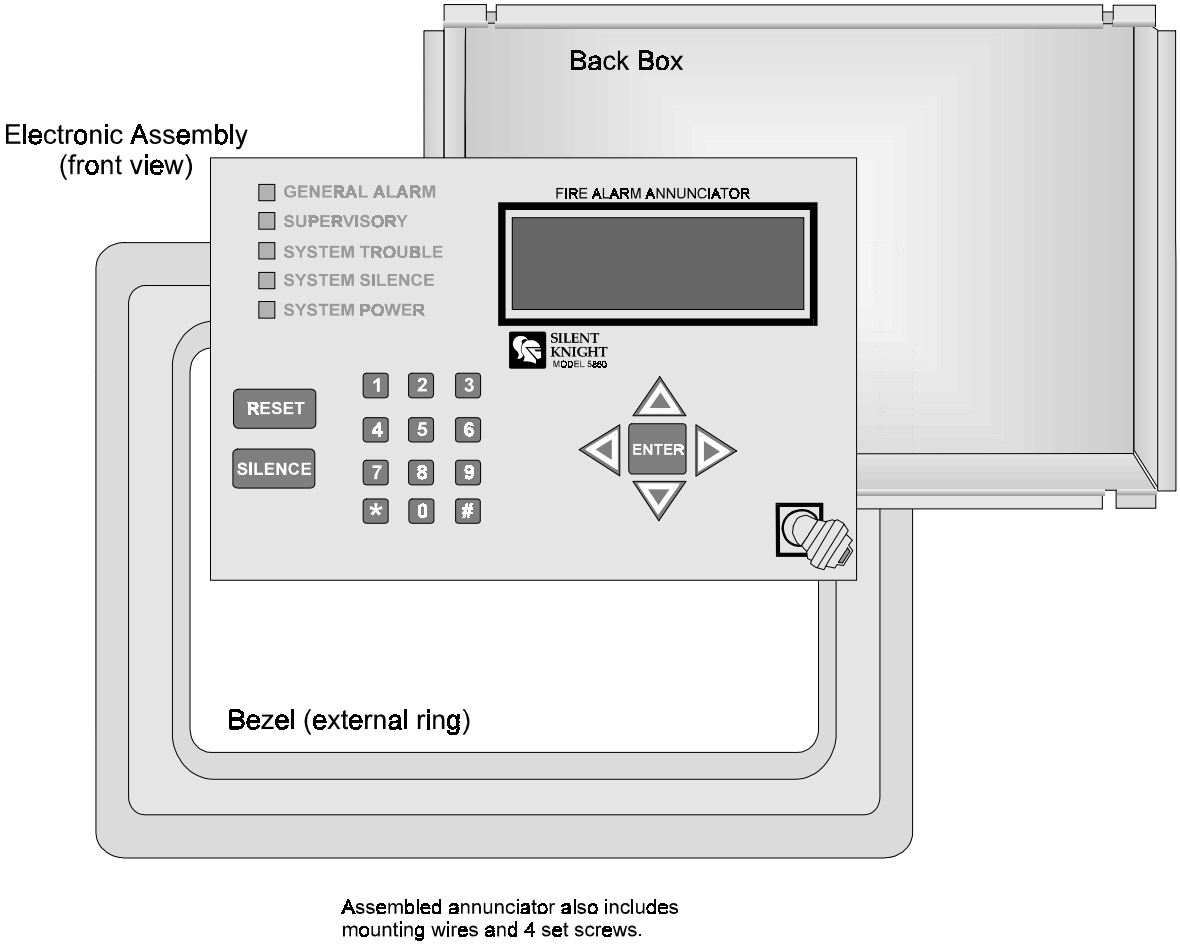


Figure 4-10 Annunciator Parts

Flush Mounting with an Electrical Box

The 5860 annunciator can be used with the following types of electrical boxes: 4S, single-gang, and double-gang.

If an electrical box is used, the box must be 1-3/8” back from the face of the wall to accommodate the annunciator. Studs used with an electrical box must be two by fours (or larger).

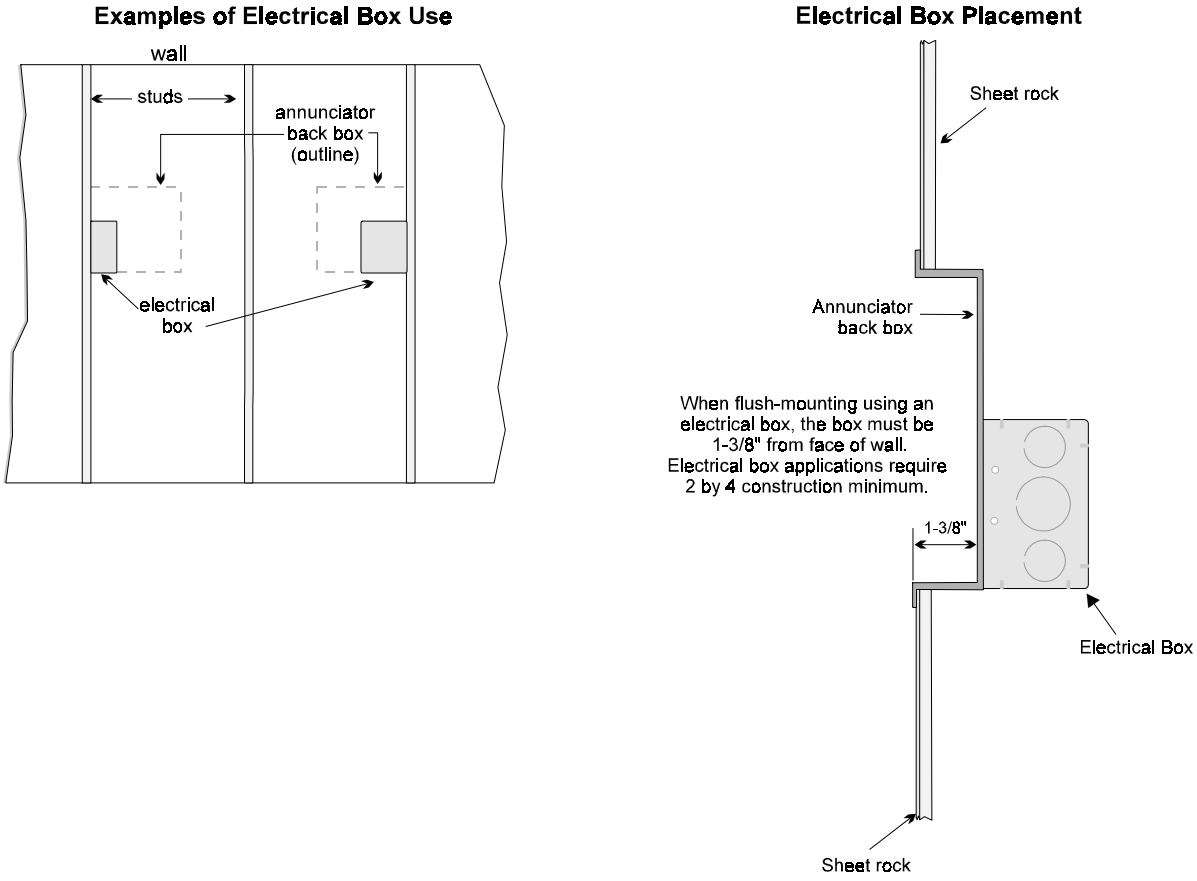


Figure 4-12 Placement of Electrical Box for Flush Mounting

Flush Mounting Steps

1. Cut a hole in the sheet rock to the following dimensions: 8-1/4” w x 6-5/8” h. If an electrical box is used, the box must be 1-3/8” back from face of wall to accommodate the annunciator (see Figure 4-12).
2. Remove knockout holes as needed for wires.
3. Fit the annunciator back box into the hole and stabilize with mounting wires. Angle the mounting wires into the first hole past the sheet rock. Secure the wires behind the screws as shown in Figure 4-13. When all four wires are in place, the back box should fit snugly into the hole in the sheet rock.

4.5.2 5860 Connection to the Panel

Connect the 5860 to the panel as shown in Figure 4-14.

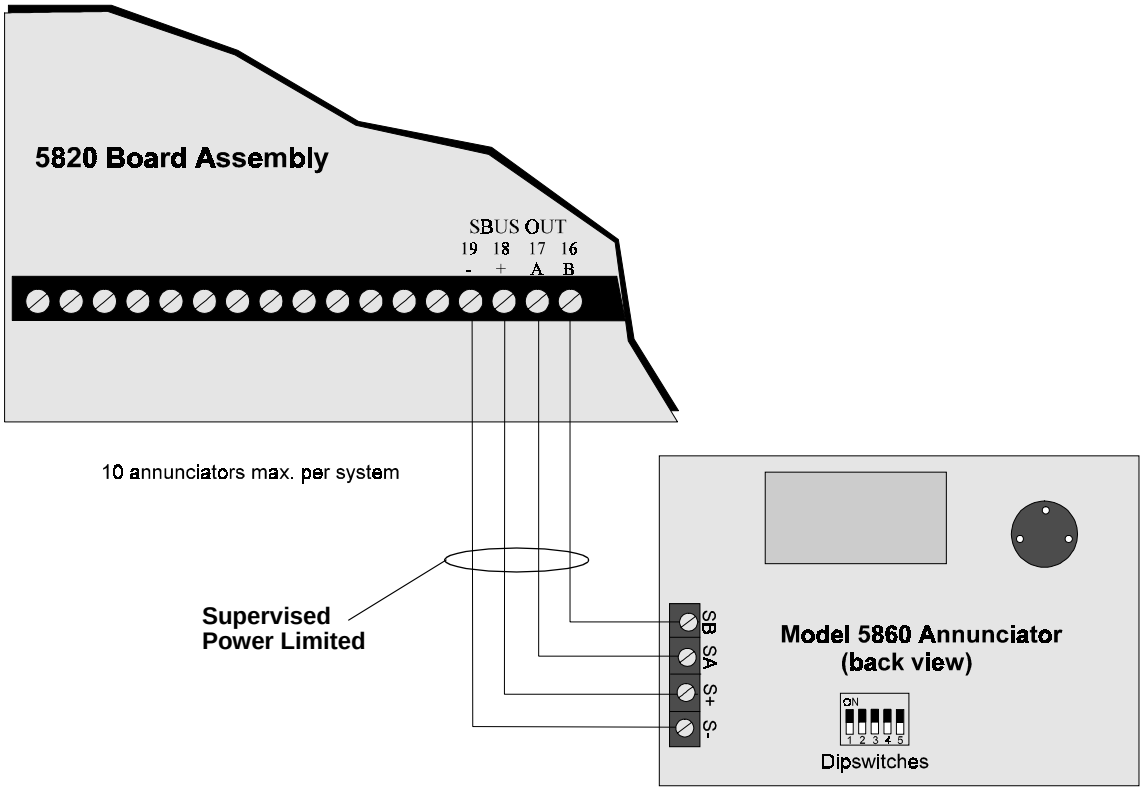


Figure 4-14 5860 Connection to the Panel

4.6.1 5815 Connection to the Panel

Connect the 5815 to the IntelliKnight 5820 panel as shown in Figure 4-16. After the 5815 is connected to the panel, it must be added to the 5820 system. This programming step is described in Section 4.10.

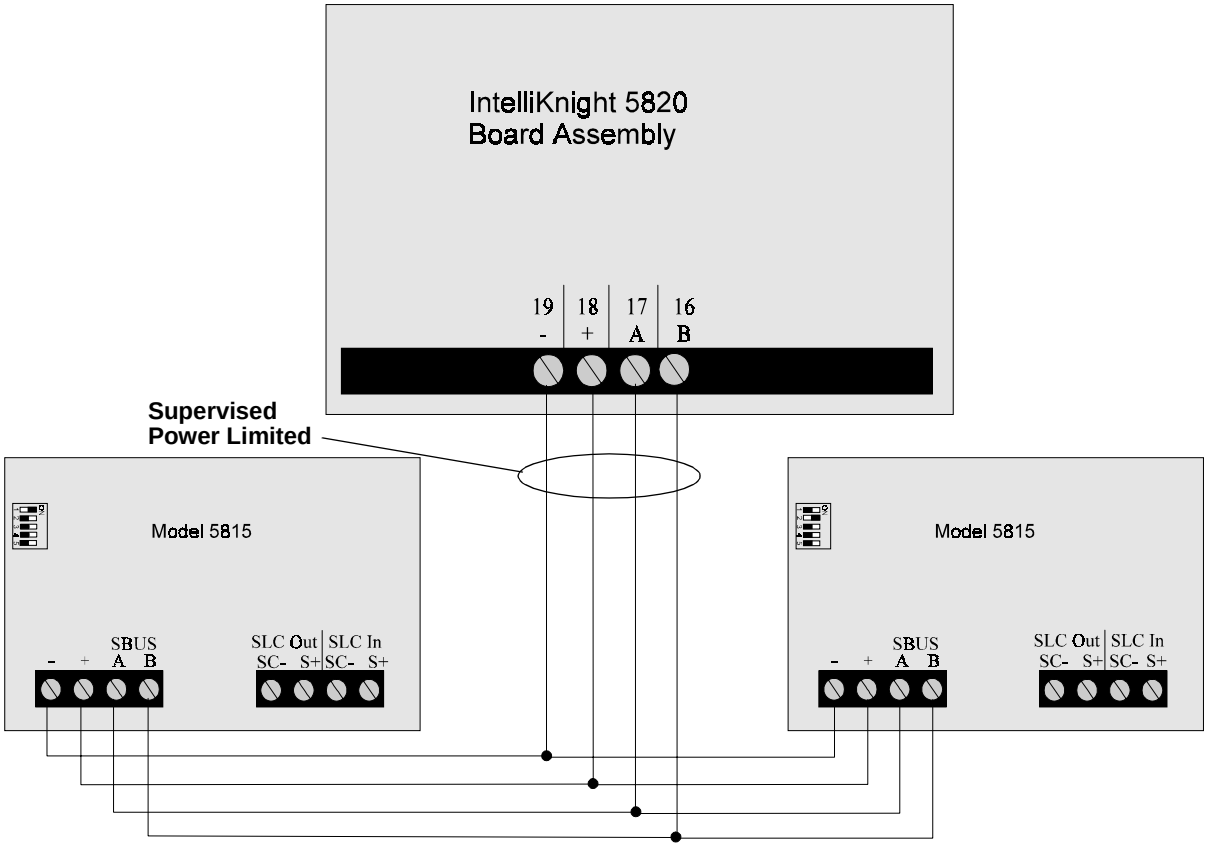


Figure 4-16 5815 Connection to IntelliKnight Main Panel Assembly

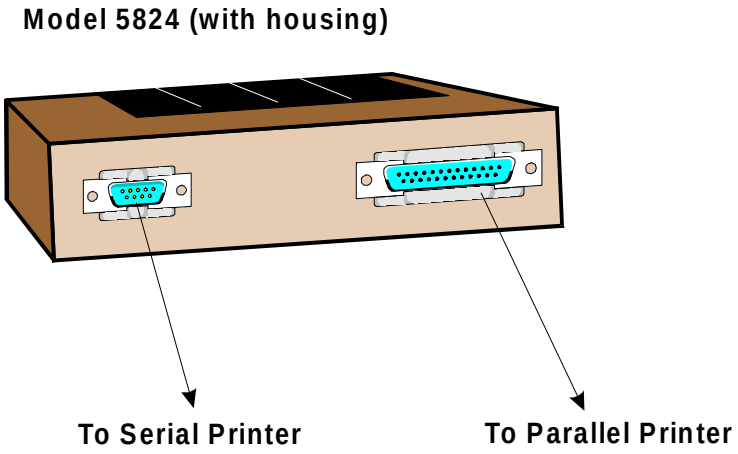


Figure 4-18 Printer Connection

4.7.1 Selecting 5824 Options

Configuring the 5824 includes the following steps:

- Add the module to the system. JumpStart will add the module automatically (see Section 6.1). You can also add it manually (see Section 4.10).
- Select a name, if desired (see Section).
- Select options for the printer and the output port. See below.

Printer and Output Port Options

1. From the Installer Main Menu, select 7 for Program Menu.
2. Select 1 for Module.
3. Select 2 for Edit Module.
4. From the list that displays, select the 5824 module you want to configure.
5. Press ENTER ENTER to bypass the next two screens. A screen similar to the one shown in Figure 4-19 will display.

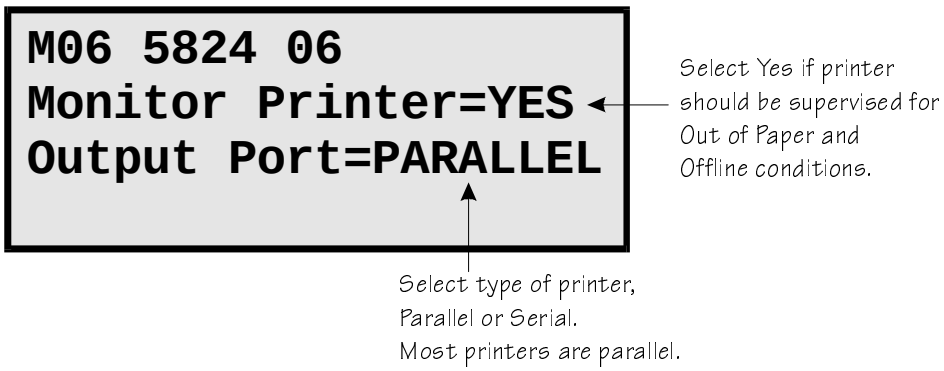

M06 5824 06
Monitor Printer=YES
Output Port=PARALLEL
Select Yes if printer should be supervised for Out of Paper and Offline conditions.
Select type of printer, Parallel or Serial. Most printers are parallel.

Figure 4-19 Selecting Printer and Output Port Options

4.8 5880 LED Driver Module

The 5880 is an LED driver board that can be used in a wide variety of applications, including as an interface with most customized floor plan annunciator boards. The 5880 can drive up to 40 LEDs and has one PZT controller. The 5880 also has eight inputs for dry contact monitoring. The following sub-sections describe hardware installation. Refer to Section 6 for programming information.

4.8.1 5880 Board Layout

Figure 4-20 is a picture of the 5880 board showing locations of screw terminals for connection to the panel and contact monitor wiring; pin connectors for connecting LEDs; and the dipswitch for selecting an SBUS ID number.

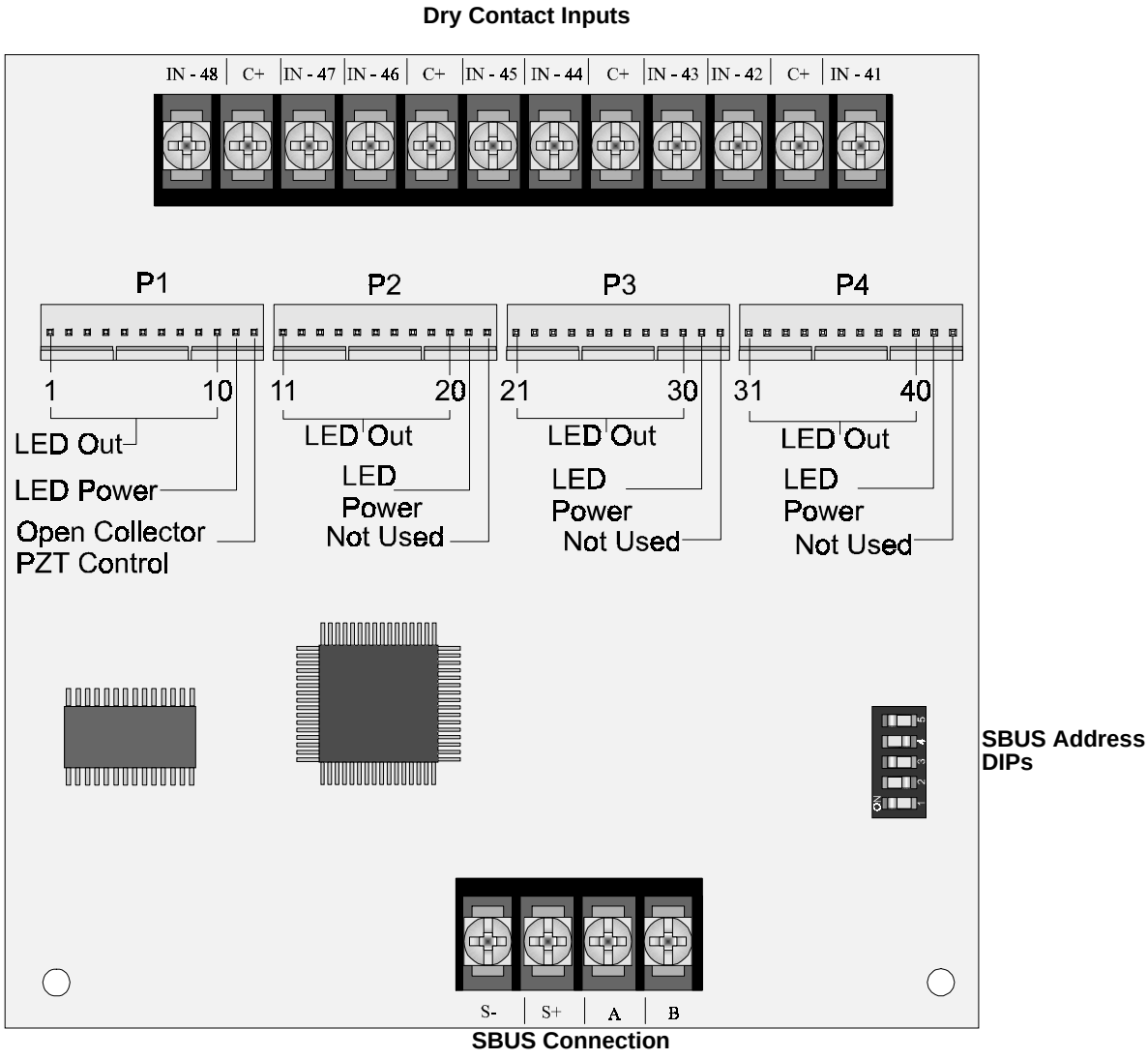


Figure 4-20 5880 Board Layout

4.8.3 LED Wiring

There are four 12-pin connectors on the 5880 board for connecting LEDs. Each LED gets its power from Pin 11. Internal resistors are sized so that there is approximately 10 mA of current for each LED, no series resistors are required. LED outputs can be mapped to output circuits. See Section 6 for programming details.

Wire the LEDs as shown in Figure 4-22.

On connector P1, Pin 12 is an open collector output for controlling a PZT. If used, the 5880 PZT will match the PZT pattern of the on-board (or 5860) annunciator.

Note: The circuit connected to "Open Collector Output" (last pin on P1) must be current limited so that no more than 100 mA of current is allowed to flow into the open collector transistor.

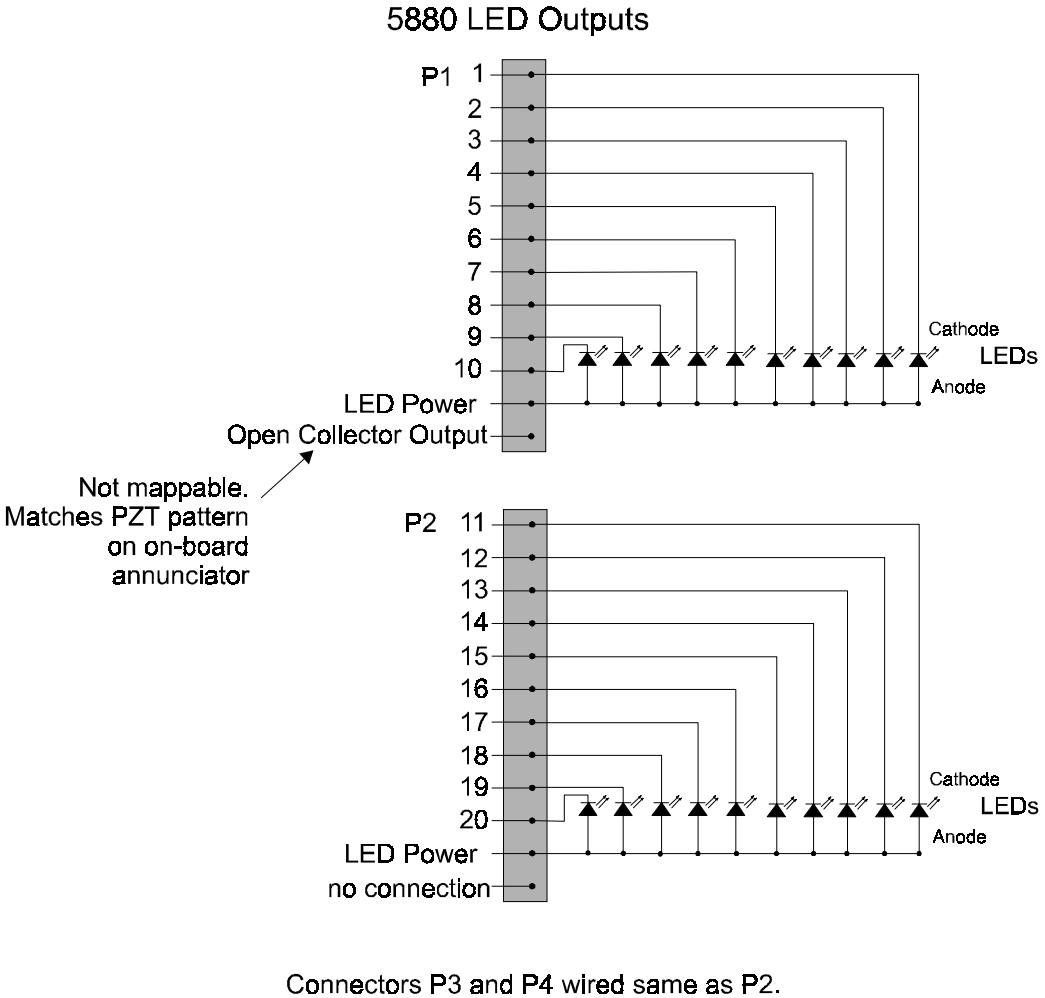


Figure 4-22 5880 Board Layout

4.9 5865-3 / 5865-4 LED Annunciator Installation

The 5865-3 and 5865-4 are LED annunciators. The 5865-4 has 30 mappable LEDs, remote silence and reset key switches, and a general system trouble LED. The 5865-3 has 30 mappable LEDs only. These are arranged as 15 pairs of red (typically used for alarm) and yellow (typically used for trouble) LEDs.

Installation of the 5865-5 and 5865-4 is identical. The key switches and the trouble LED follow the behavior of other system annunciators and do not require any installation steps. The following sub-sections describe how to install the 5865-3 and 5865-4 hardware. Refer to Section 6 for programming information.

Note: This manual uses "5865" when referring to aspects of the 5865-3 and 5865-4 that are common to both models.

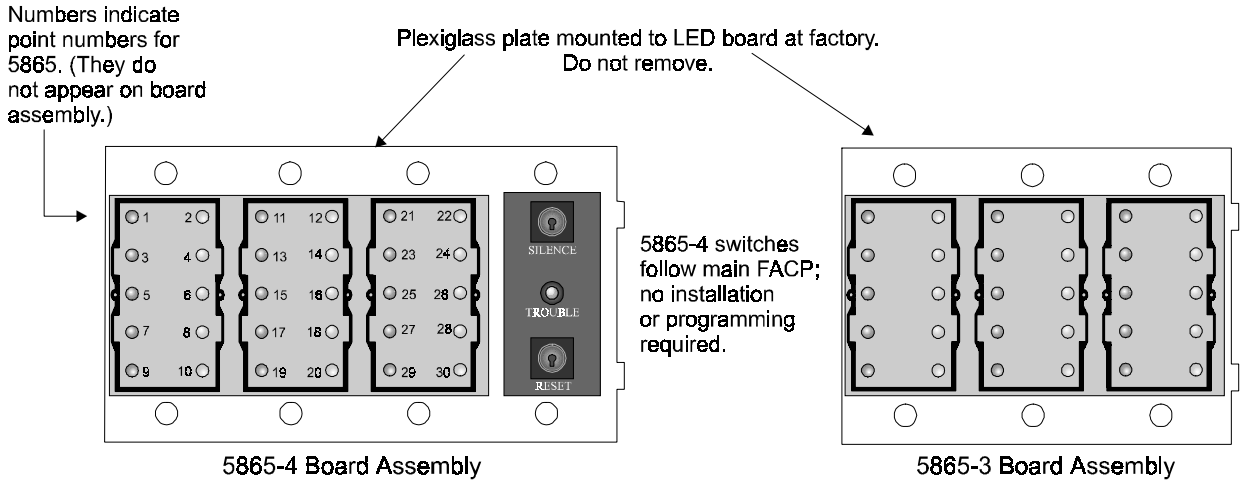

Numbers indicate point numbers for 5865. (They do not appear on board assembly.)
Plexiglass plate mounted to LED board at factory. Do not remove.
1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20
21 22 23 24 25 26 27 28 29 30
SILENCE
TROUBLE
RESET
5865-4 switches follow main FACP; no installation or programming required.
5865-4 Board Assembly
5865-3 Board Assembly

Figure 4-24 5865-3 and 5865-4 Assembly (front view)

4.9.2 5865 Mounting

Mount the 5865-4 to a standard 4-gang electrical box. Mount the 5865-3 to a standard 3-gang electrical box. In Figure 4-26, the 5865-4 attached to a 4-gang box is used as an example.

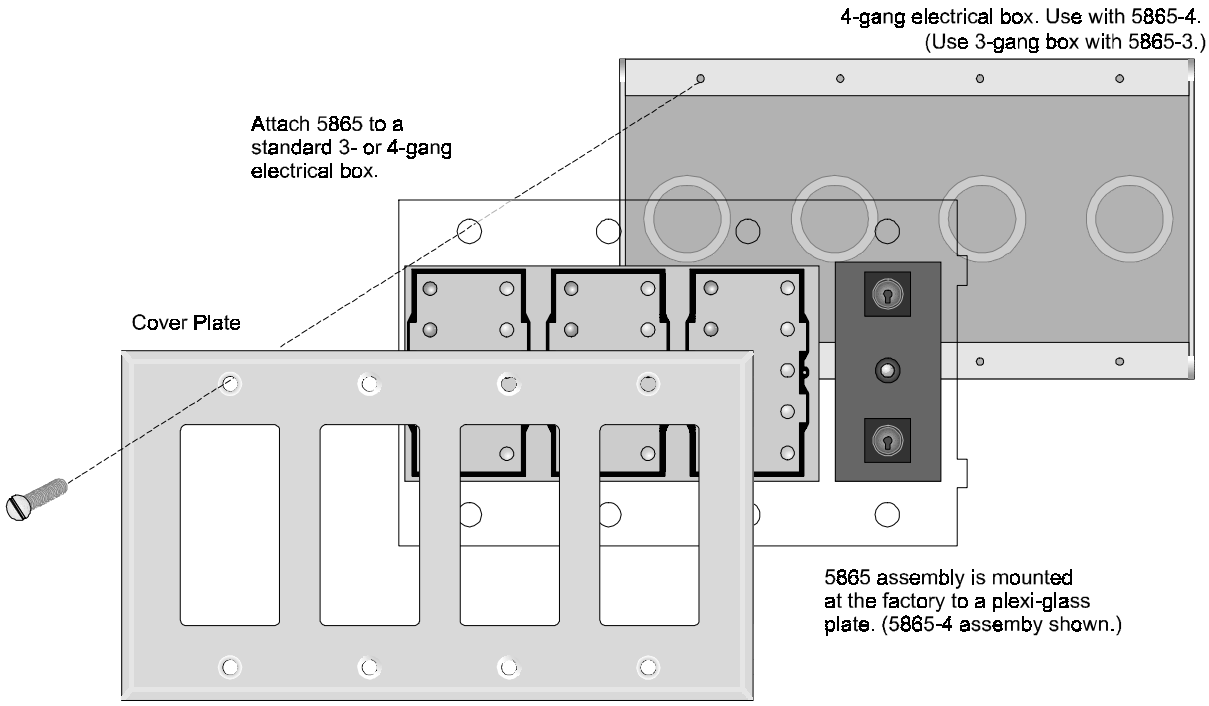

4-gang electrical box. Use with 5865-4.
(Use 3-gang box with 5865-3.)
Attach 5865 to a standard 3- or 4-gang electrical box.
Cover Plate
5865 assembly is mounted at the factory to a plexi-glass plate. (5865-4 assemby shown.)

Figure 4-26 5865 Mounting Example

The 5865 ships with a set of zone description labels that can be inserted into the 5865 board assembly. These labels can be used in a typewriter or can be written on by hand.

Slide the labels under the plexiglass as shown in Figure 4-27. The LEDs will show through the label when illuminated.

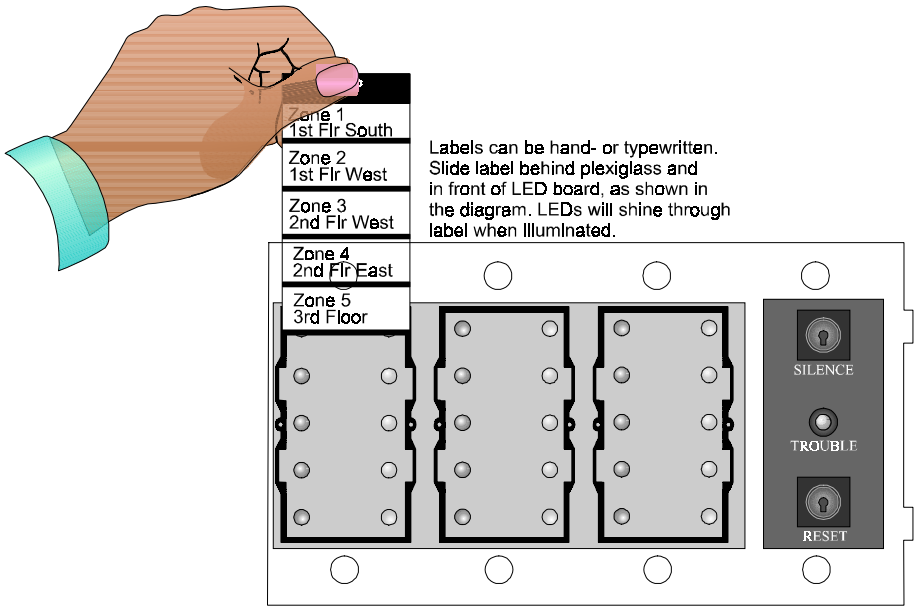


Figure 4-27 Inserting Zone Description Labels

4.11 Telephone Connection

Connect the telephone lines as shown in Figure 4-29. The Model 7860 phone cord is available from Silent Knight for this purpose.

A number of programmable options are available for customizing telephone lines. These options are described in Section 7.5.

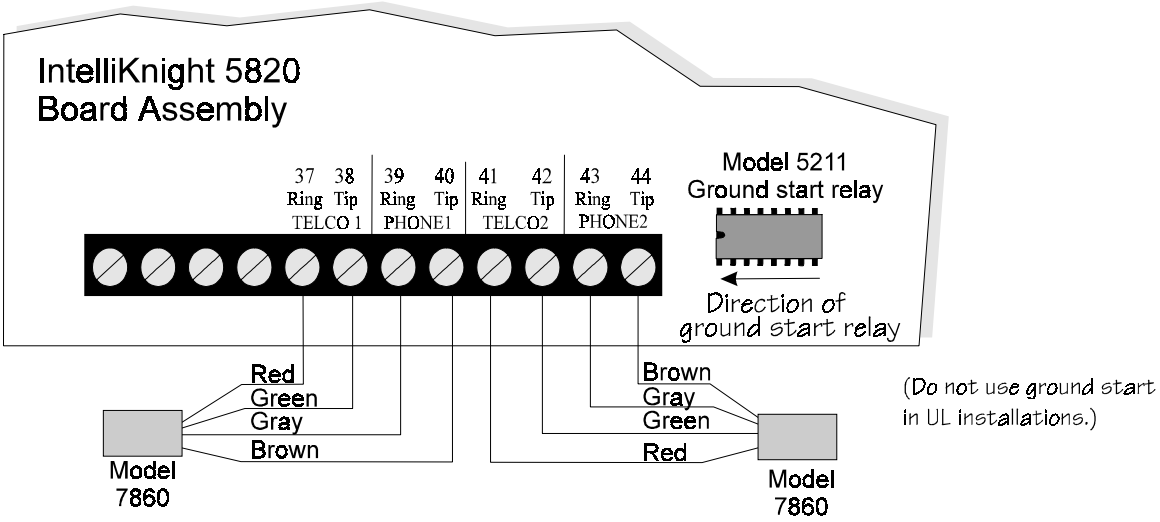


Figure 4-29 Connection of Telephone Lines

4.11.1 Ground Start Relay (Model 5211)

Note: Do not use ground start in UL installations.

If you are using the ground start telephone network, you must use the Model 5211 Ground Start Relay (ordered separately).

1. Install the relay as shown in Figure 4-29.
2. Enable ground start through programming. See Section 7.5.2.6 for instructions.

4.12.1.2 Class A Notification Wiring

You must use an appliance from the list of compatible appliances in the Appendix at the back of this manual.

To install a Class A notification appliance circuit:

1. Wire the Class A notification appliances as shown in Figure 4-31.
2. Configure the circuit for Class A in programming (see Section 7.4).

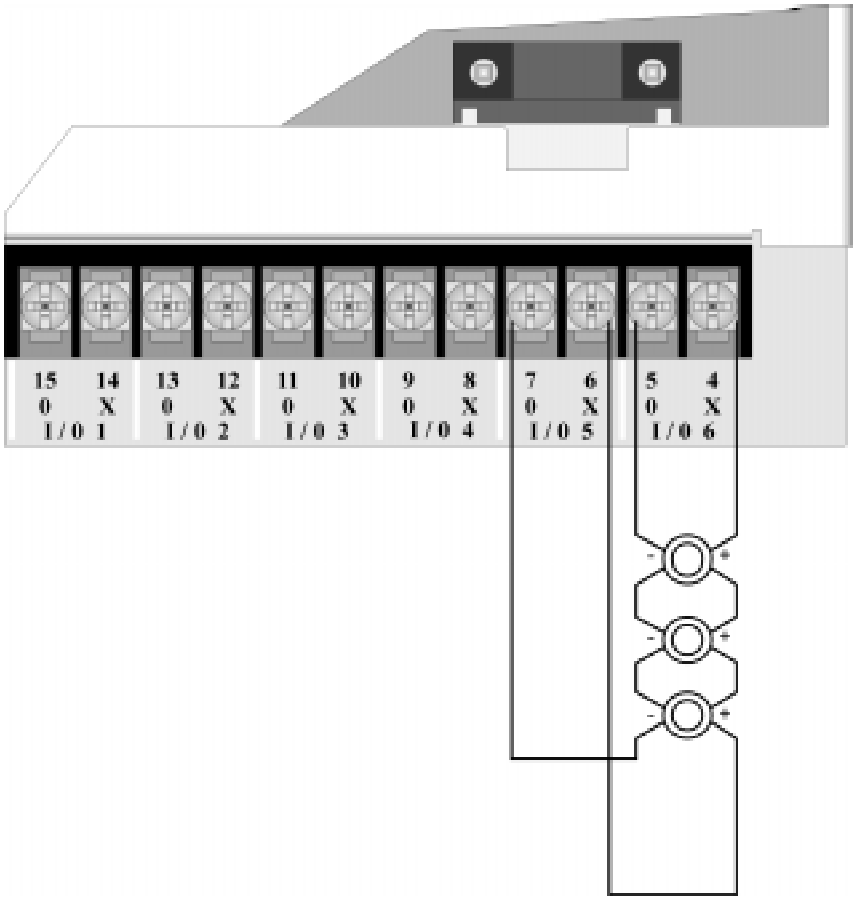


Figure 4-31 Class A Notification Appliance Circuit Configuration

Note: In programming any point that uses multiple I/O circuits are always referred to as the lowest I/O circuit number used. For example, Figure 4-31 uses both I/O circuit 5 and 6, so in programming it would be referred to as point 5.

4.12.2.2 Class A Inputs

You can connect conventional Class A switches, such as waterflow switches and pull stations, directly to the I/O circuits of the 5820 control panel.

To install a Class B switch:

1. Wire the Class B switch as shown in Figure 4-33.
2. Configure the circuit through programming (see Section 7.4).

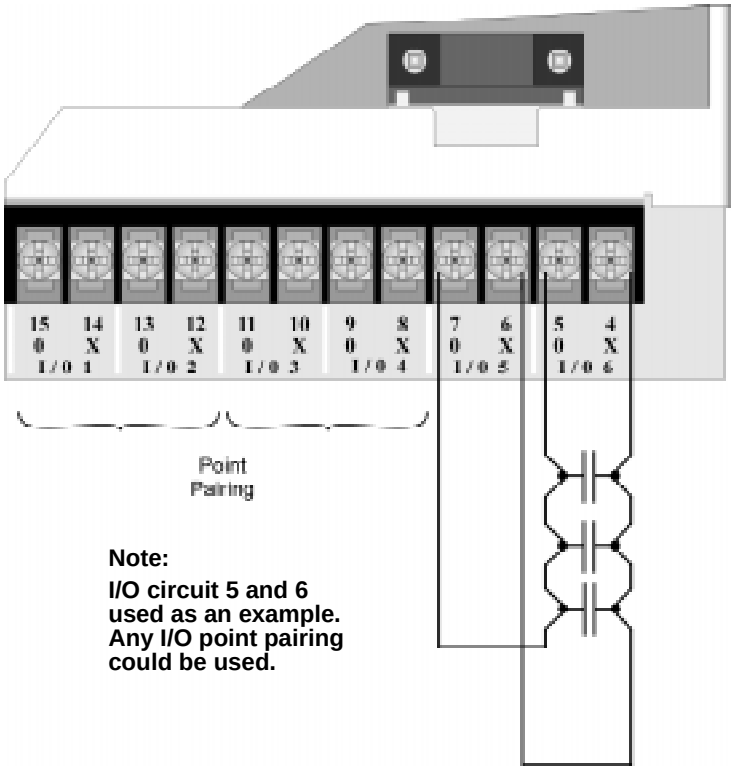

15 14 13 12 11 10 9 8 7 6 5 4
0 X 0 X 0 X 0 X 0 X 0 X
I/O 1 I/O 2 I/O 3 I/O 4 I/O 5 I/O 6
Point Pairing
Note:
I/O circuit 5 and 6 used as an example. Any I/O point pairing could be used.

Figure 4-33 Class A initiating Switches

Note: In programming any point that uses multiple I/O circuits are always referred to as the lowest I/O circuit number used. For example, Figure 4-33 uses both I/O circuit 5 and 6, so in programming it would be referred to as point 5.

2-Wire Class A Smoke Detector Installation

To install a Class A two-wire smoke detector, wire as shown in Figure 4-35.

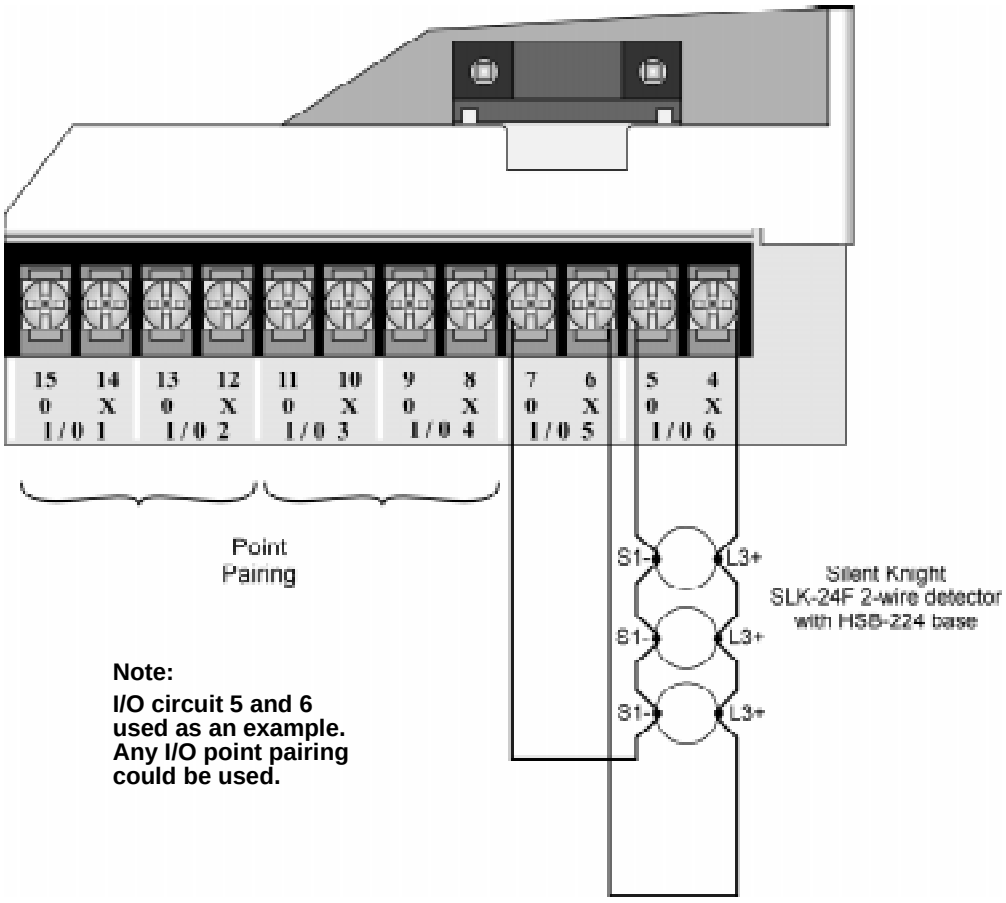

15 14 13 12 11 10 9 8 7 6 5 4
0 X 0 X 0 X 0 X 0 X 0 X
I/O 1 I/O 2 I/O 3 I/O 4 I/O 5 I/O 6
Point Pairing
S1- L3+
S1- L3+
S1- L3+
Silent Knight SLK-24F 2-wire detector with HSB-224 base
Note:
I/O circuit 5 and 6 used as an example. Any I/O point pairing could be used.

Figure 4-35 Two-Wire Class A Smoke Detector Connections

Note: In programming any point that uses multiple I/O circuits are always referred to as the lowest I/O circuit number used. For example, Figure 4-35 uses both I/O circuit 5 and 6, so in programming it would be referred to as point 5.

Installing 4-Wire Class A Smoke Detectors

Figure 4-37 illustrates how to install 4-wire Class A detectors.

Conventions used for wiring 4-wire Class A loops:

1. Up to two Class A 4-wire loops can be connected to the control panel at once.
2. Smoke power is supplied to each Class A loop as shown in Figure 4-37.

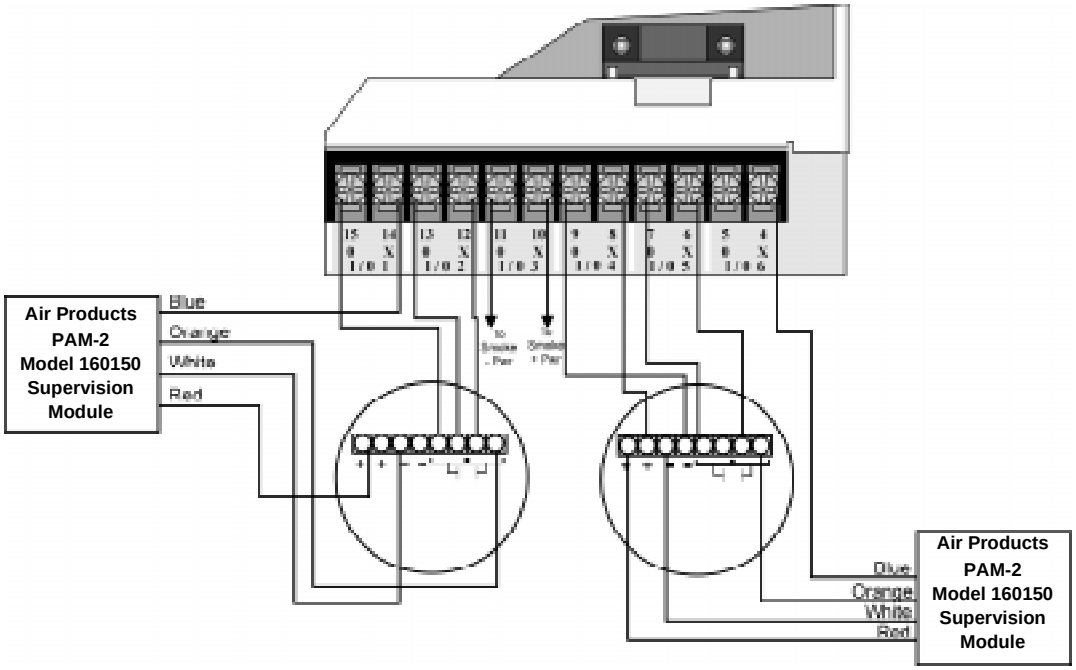


Figure 4-37 Class A 4-Wire Smoke Detector Connections

Note: In programming any point that uses multiple I/O circuits are always referred to as the lowest I/O circuit number used. For example, Figure 4-37 uses I/O circuits 1, 2, 3 together and 4, 5, 6 together. In programming (1, 2, 3) would be referred to as point 1, and (4, 5, 6) would be referred to as point 4.

4.13.2 Constant Power

Use constant power for applications that require a constant auxiliary power source. Power is always present at Constant circuits.

4.13.3 Resettable Power

Resettable power is typically used to power beam detectors, flame detectors and conventional 4-wire smoke detectors. For circuits selected as Resettable, 24-volt power is always present at the terminals unless a system reset occurs. If a system reset occurs, power is disconnected from the terminals for 30 seconds, then re-applied.

4.15 Keltron Model 3158 Installation

The IntelliKnight 5820 is compatible with Keltron Model 3158, used for direct connection to a Keltron receiver. The 3158 reports alarms, supervisories, and troubles.

The steps for connecting the 3158 to the 5820. Refer to the 3158 installation instructions for complete information.

1. Wire the 3158 to the 5820 as shown in the connection list and Figure 4-40.
2. Wire the 3158 within 20 feet of the 5820. Wiring must be enclosed in conduit.
3. Program 5820 Relay 1 for alarm.
4. Program I/O 5 for alarm.
5. Program I/O 6 for supervisory.

Table 4-3: Keltron 3158 to IntelliKnight 5820 Connection List

Terminal #	Connects To
3158 Term. 1	To Keltron receiving equipment
3158 Term. 2	To Keltron receiving equipment
3158 Term. 3	Earth ground
3158 Term. 4	Not used; no connection.
3158 Term. 5	5820 Term. 18
3158 Term. 6	5820 Term. 19
3158 Term. 7	5820 Term. 7

Terminal #	Connects To
3158 Term. 8	5820 Term. 28
3158 Term. 9	5820 Term. 5
3158 Term. 10	5820 Term. 4
5820 Term. 6	5820 Term. 29
5820 Term. 28	5820 Term. 31
5820 Term. 29	5820 Term. 30

4.16 Model 5220 Direct Connect Module

The 5220 Direct Connect Module can be used with the 5820 to meet NFPA 72 standards. The 5220 requires four connections to the 5820 and provides outputs for city box and polarity reversal applications. The 5220 cannot be used for sprinkler supervisory.

The 5220 provides a current that reverses polarity during an alarm or removes current during a trouble condition.

Figure 4-41 Shows the specific components of the 5220 module which will be used for installation.

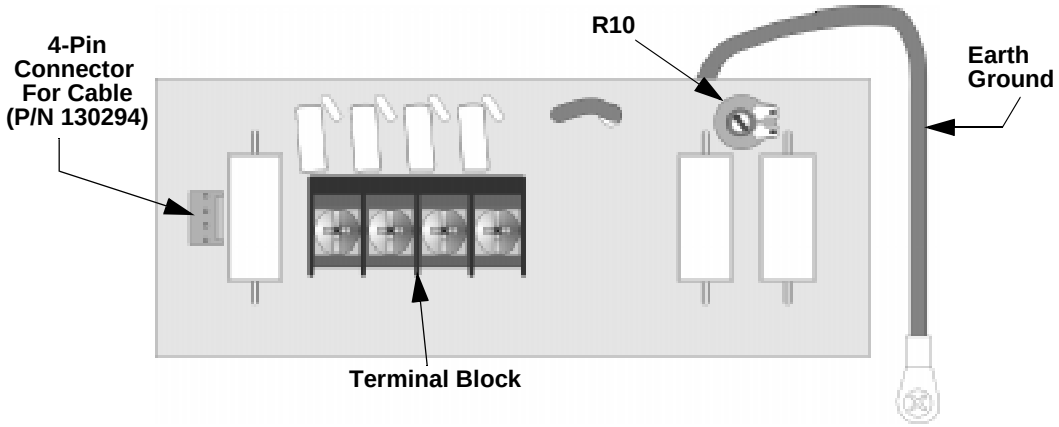


Figure 4-41 5220 Components

4.16.1 5220 Electrical Specifications

T shows the electrical specifications for the 5220 for different wiring configurations.

Table 4-4: 5220 Electrical Specifications

Wiring Configuration	Standby Current	Alarm Current	Comment
City Box	*0	1 Amp for 1 second	See Section 4.16.2 for wiring diagram.
Polarity Reversal	100 mA	100 mA	See Section 4.16.3 for wiring diagram.

* *Notification supervision current accounted for in 5820 draw.*

4.16.3 NFPA 72 Polarity Reversal

When the 5220 is wired and programmed for polarity reversal, it reports alarm and trouble events to a remote site. Alarms will override trouble conditions and it will not be possible to reset the remote indicator until the condition is cleared and the 5820 panel is reset.

If an alarm condition occurs, the alarm relay will close, overriding the trouble condition.

To install the 5220 for polarity reversal, follow the steps below:

1. Locate the knockout on the right side of the 5820 cabinet to connect the 5220 using a short piece of conduit (must not exceed 20 feet in length).
2. Wire the 5220 to the 5820 using the four-wire pigtail provided as shown in Figure 4-43. This diagram also shows how to connect the 5220 to the remote indicator. Do not install an EOL resistor in the terminals of the I/O circuit used for this application.
3. Connect earth ground wire to the 5220 chassis with mounting screw.
4. Program the I/O circuit used as continuous and non-silencing. Refer to Section 7.4.1 for zone grouping and mapping.
5. If necessary, adjust loop current using the potentiometer (R10) on the 5220 board (see Figure 4-41). Normal loop current is 2-to-8 mA with a 1k ohm remote station receiving unit. Maximum loop resistance is 3k ohm.

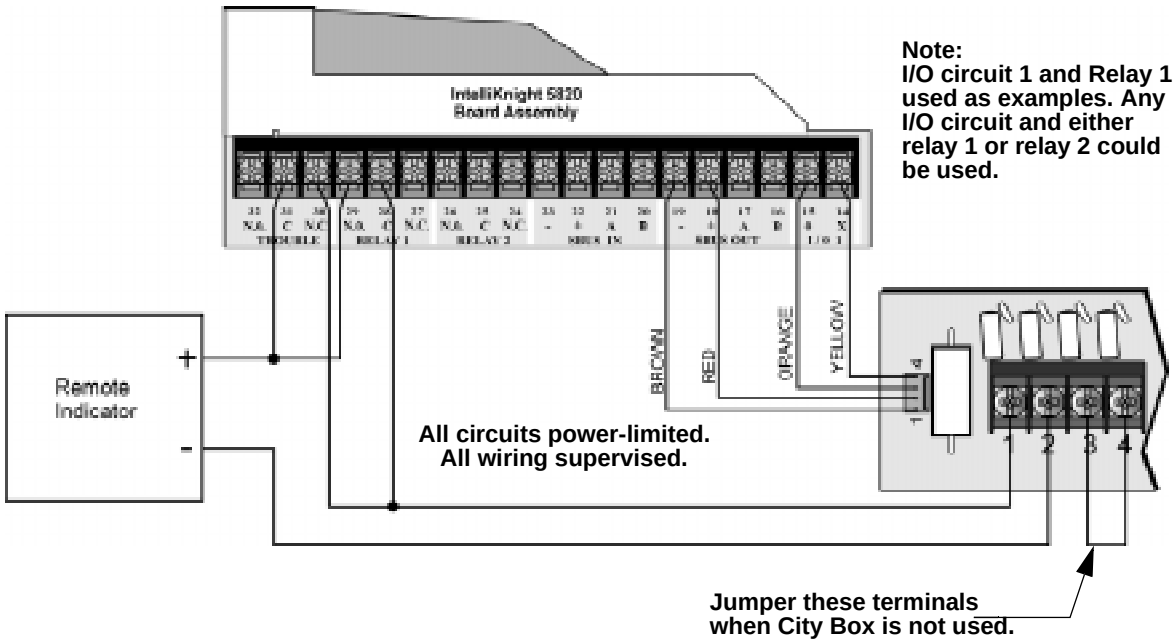


Figure 4-43 Polarity Reversal Connection

Section 5
SLC Device Installation

Caution

To avoid the risk of electrical shock and damage to the unit, power should be OFF at the control panel while installing or servicing.

5.1 Types of SLC Devices

The following types of SLC devices can be used with the 5820 system.

- *Model SD500-AIM Input Module (switch input), standard size, dipswitch configurable
- *Model SD500-MIM Mini Input Monitor Module (switch input), small size, dipswitch configurable. Fits in single-gang box with manual pull station switch.
- *Model SD500ARM Addressable Relay Module, dipswitch configurable
- Model SD505-AHS Heat Sensor
- Model SD505-AIS Ionization Smoke Detector
- Model SD505-APS Photoelectric Smoke Detector
- Model SD505-ADH Duct Housing (used with SD505-AIS or SD505-APS smoke detectors)
- Model SD500-ANM Addressable Notification Module

* *Indicates replacement for earlier model. SD500-AIM replaces SD500-FRCM-4; SD500-MIM replaces SD500-FRCM; SD500-ARM replaces SD505-ARM. Earlier models are compatible with the panel but are no longer manufactured by Silent Knight. Contact Silent Knight if you need information about these models.*

5.2 Maximum Number of Devices

A total of 381 analog addressable devices can be used with the IntelliKnight 5820 system. 127 devices can be attached to the main 5820 system. The optional Model 5815 SLC Expander can add another 127 devices. Up to two 5815s can be added to the main system to achieve the 381 point capacity.

When using T-taps, the total length of all taps and the main bus must not exceed 40,000 feet. This requirement must be met in addition to the maximum distance requirements for the various wire gauges.

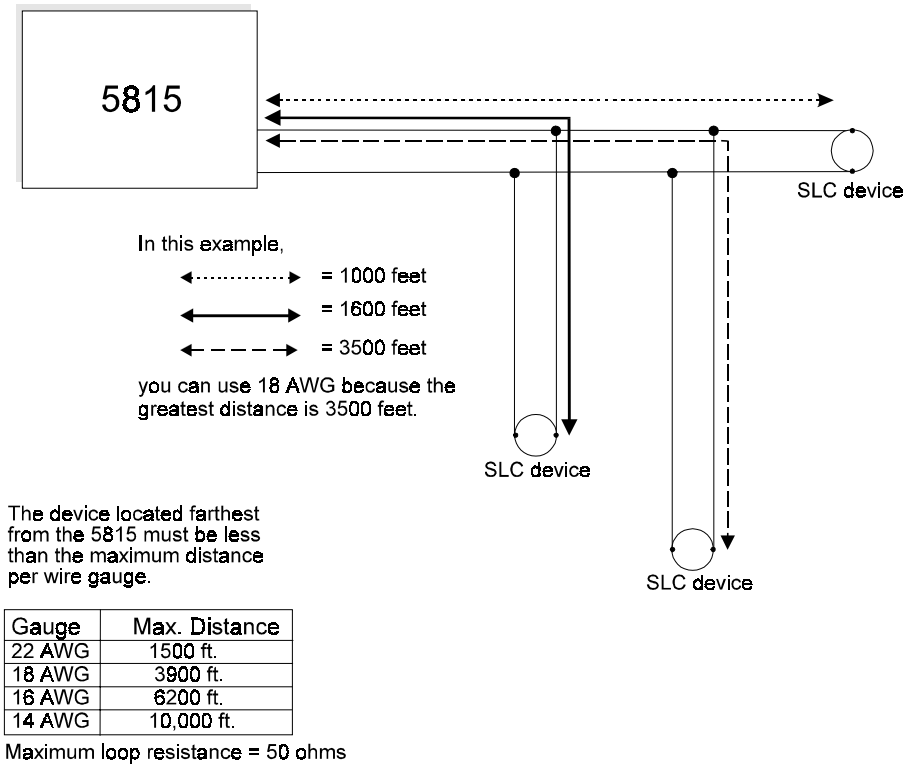

5815
SLC device
In this example,
= 1000 feet
= 1600 feet
= 3500 feet
you can use 18 AWG because the greatest distance is 3500 feet.
SLC device
The device located farthest from the 5815 must be less than the maximum distance per wire gauge.
SLC device
Gauge | Max. Distance
22 AWG | 1500 ft.
18 AWG | 3900 ft.
16 AWG | 6200 ft.
14 AWG | 10,000 ft.
Maximum loop resistance = 50 ohms

Figure 5-2 Calculating Wire Run Length for a T-tap

5.3.2 Wiring 5815 in Class A Configuration

F illustrates how to wire the SLC loop for class A installations.

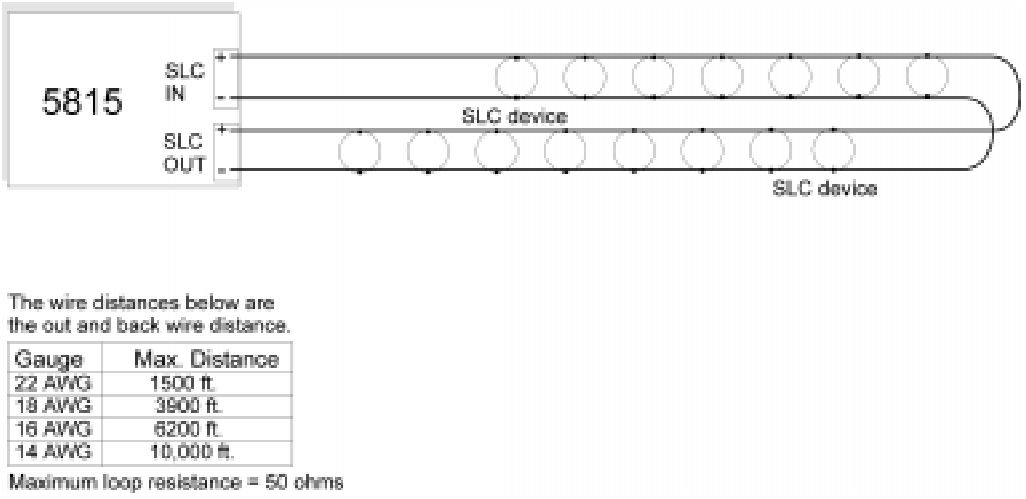

5815
SLC IN
SLC OUT
SLC device
SLC device
The wire distances below are the out and back wire distance.
Gauge | Max. Distance
22 AWG | 1500 ft.
18 AWG | 3900 ft.
16 AWG | 6200 ft.
14 AWG | 10,000 ft.
Maximum loop resistance = 50 ohms

Figure 5-3 Class A SLC Configuration

Note: No t-taps allowed on class A SLC loops.

5.5 Input Monitor Module (SD500-AIM)

Wire and mount the SD500-AIM full-size input module as described in this section (see Figure 5-5 and Figure 5-6). See Section 5.10.2 for information on how to use the on-board dipswitch to select an address for the module.

Wire the monitor modules to the panel or to the 5815 as shown in Figure 5-5.

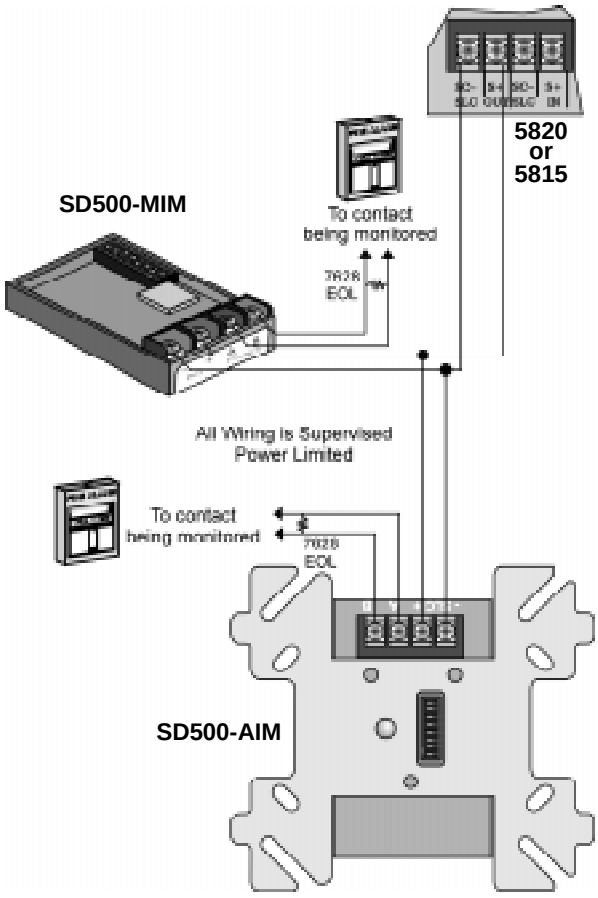


Figure 5-5 SD500-AIM/MIM Input Module Connection to the FACP (Class B)

5.7 Relay Module Installation

The information in this section applies to Model SD500-ARM Relay Modules. See Section 5.10.2 for information on how to use the on-board dipswitch to select an address for the module.

5.7.1 Electrical Specifications

The following is electrical rating information for SD500-ARM relay modules.

Relay Ratings

30 VDC @ 2.0 A Resistive

30 VDC @ 1.0 A Inductive (.6PF)

30 VDC @ .6 A (.35PF) Pilot Duty

Connect to power limited sources only.

5.7.2 Wiring

Wire relay modules to the panel or to the 5815 as shown in Figure 5-7.

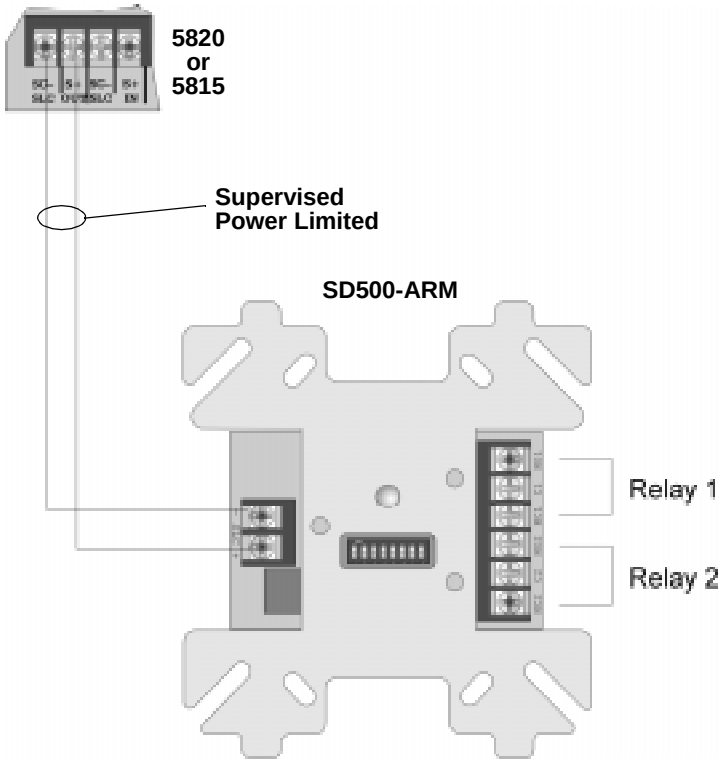


Figure 5-7 Relay Module Connection to the FACP (Class B)

5.8.2 Wiring the SD500-ANM

Note: Installation and wiring of this device must be done in accordance with NFPA 72 and local ordinances.

5.8.2.1 Wiring the SD500-ANM to the 5815

The SD500-ANM connection for the 5815 internal and external are the same. Wire as shown in Figure 5-8.

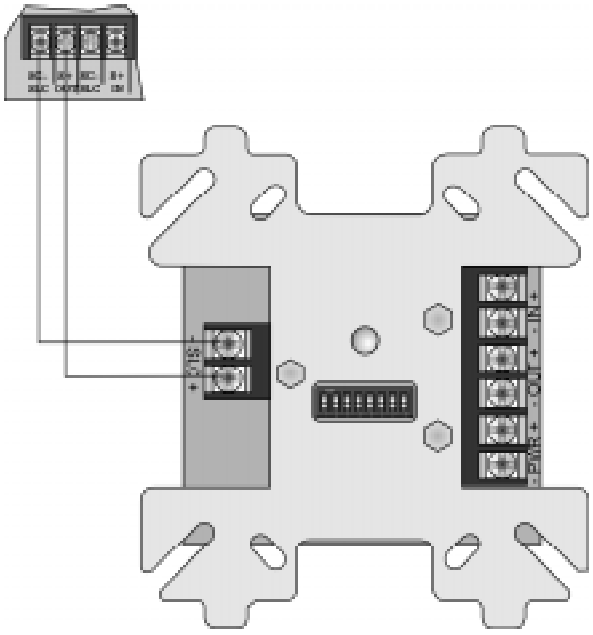


Figure 5-8 : SD500-ANM Connections to the 5815

5.8.3 Class B Notification Configuration

Wire Class B notification appliance circuits to the SD500-ANM as shown in Figure 5-9.

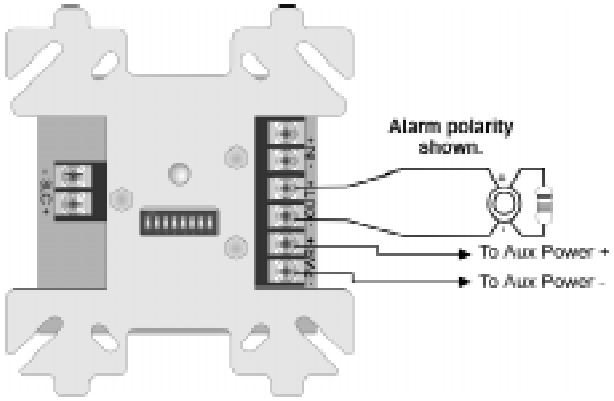


Figure 5-9 : SD500-ANM Class B Notification Wiring

5.9 Duct Detector Installation

Figure 5-12 shows the layout of the SD505-ADH duct housing with a detector base in place, including location of the terminals for connection to the FACP. Figure 5-13 shows wiring in detail.

Address the detector head before attaching it to the base. This procedure is explained in Section 5.10.

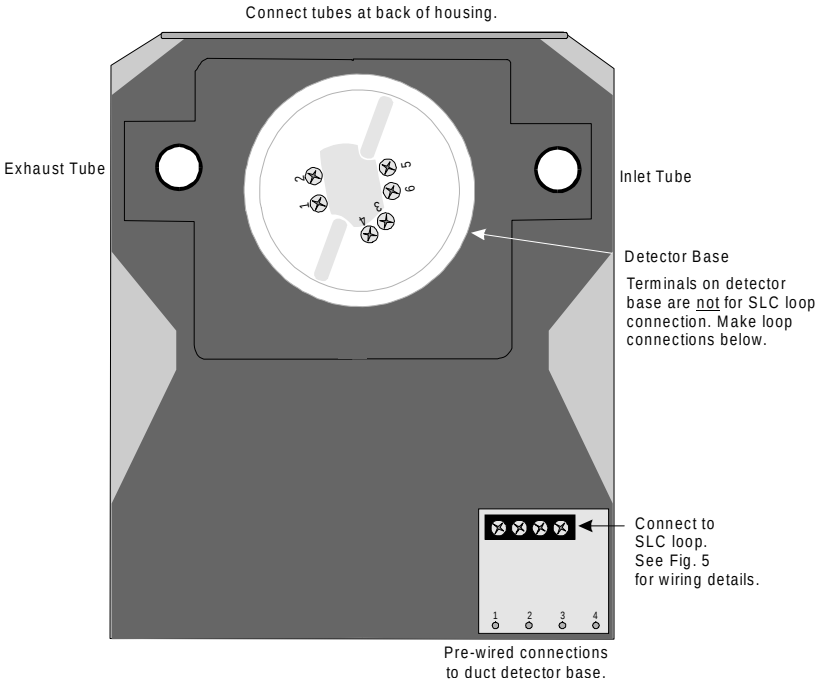

Connect tubes at back of housing.
Exhaust Tube
Inlet Tube
Detector Base
Terminals on detector base are not for SLC loop connection. Make loop connections below.
Connect to SLC loop. See Fig. 5 for wiring details.
1 2 3 4
Pre-wired connections to duct detector base.

Figure 5-12 Model SD505-ADH Internal View Showing Connector Locations

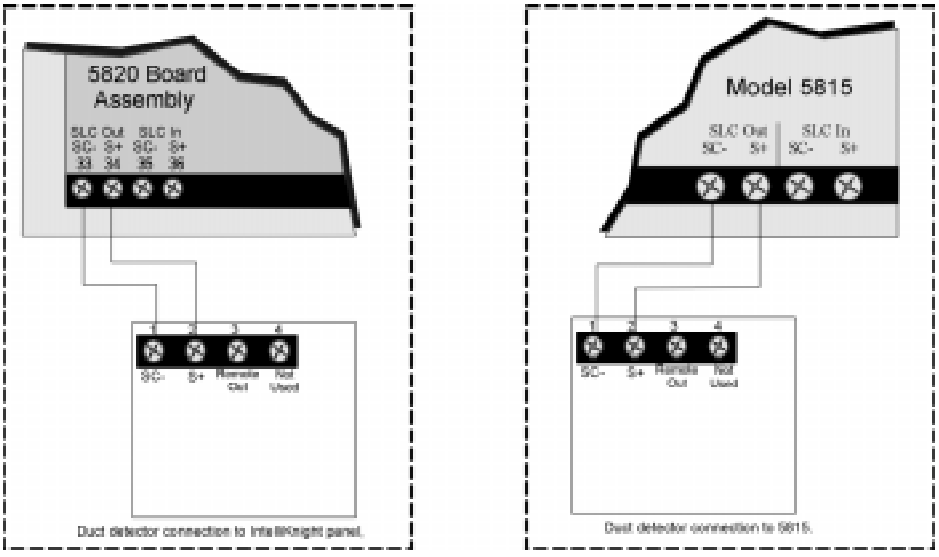

5820 Board Assembly
SLC Out SLC In
SC- S+ SC- S+
33 34 35 36
1 2 3 4
SC- S+ Remote Out Not Used
Duct detector connection to IntelliKnight panel.
Model 5815
SLC Out SLC In
SC- S+ SC- S+
1 2 3 4
SC- S+ Remote Out Not Used
Duct detector connection to 5815.

Figure 5-13 Duct Detector Connection to the 5820

5.10.2 Dipswitch Addressing

Input and relay module addresses are set using the dipswitch that appears on the module board. The chart below shows the available addresses. For example, to select address 3, place dipswitches 1 and 2 in the up position. The range of valid addresses is 1-127 (0 is an invalid address).

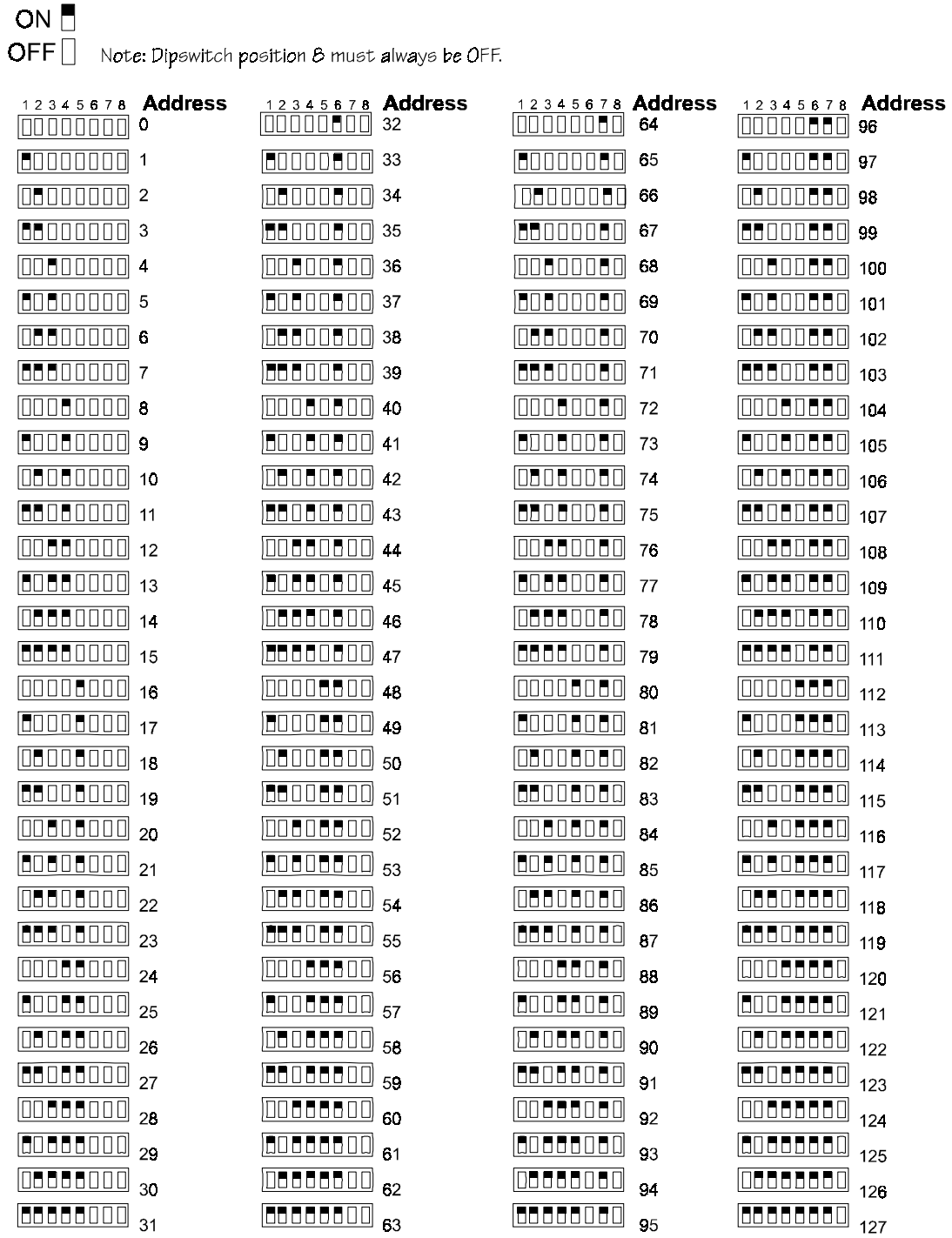


Figure 5-15 SLC Device Addressing Using Dipswitches

Section 6
Programming Overview

This section of the manual is intended to give you an overview of the programming process. Please read this section of the manual carefully, especially if you are programming the IntelliKnight 5820 panel for the first time.

The JumpStart feature automates many programming tasks and selects default options for the system. You will run JumpStart at least once when you are installing the system. See Section 6.1 for details. After you run JumpStart, you may need to do some additional programming depending on your installation. Section 7 of this manual cover manual programmable options in detail.

Programming the panel can be thought of as a three part process. You must program:

- System options. These are options that affect general operation of the panel (see Section 7.5 for details).
- Options for input points and zones. These are primarily options that control detection behavior of devices (see Section 7.4 for details).
- Options for output points and groups. This includes selecting characteristics for output groups and mapping output circuits to output groups (see Section 7.4 for details).

6.1 JumpStart Autoprogramming

The JumpStart feature allows for faster system setup. When you run JumpStart (immediately after addressing SLC devices), the system scans devices on all SLC loops and determines device type (for example, ionization smoke detector or heat sensor) and selects some system options based on the device type. This saves the installer from having to program options for each device. Depending on the application, the installer may need to make some changes after JumpStart completes.

See Section 6.1.3 for complete details about running JumpStart.

IMPORTANT

JumpStart is intended to be run one time only, immediately after SLC devices have been addressed and connected. JumpStart will reset manually all programmed options to default settings. Do not run JumpStart after you have configured the system.

3. Select [7] for Program Menu.
4. From the next menu, select [6] for JumpStart.
5. The message "WARNING Will reset all system options" displays on the LCD. Select Yes to continue. A series of messages displays for the next several seconds. JumpStart scans the SLC loops for devices. This can take several minutes, depending on the number of devices attached.
6. When the message "Configure System Done" displays on the LCD, press any key to continue.
7. Select one of the following options from the menu that displays.

[1] - Review System	Press [1] if you need to review the JumpStart configuration.
[2] - Repeat JumpStart	Press [2] if you need to rerun JumpStart for any reason.
[3] - Accept Configuration	1. If you are ready to make the JumpStart configuration permanent, select [3]. 2. The system will ask you if the installation contains duct detectors. If there are none, select [2] for No and skip to Step 8. If the system contains duct detectors, select [1] for Yes and continue with Step 3. 3. From the list that displays, select the 5815 device that contains the duct detectors. 4. The first photoelectric or ionization detector on the system will display. Select [1] for DUCT and [2] for NonDUCT. 5. Press △ to select the next detector. Select [1] for DUCT and [2] for Non-DUCT. Continue until all duct detectors have been selected. (Note: You can move backwards through the list with ▽.) 6. When you reach the last detector on this device, press ◁. 7. The system will ask you if there are more duct detectors in the system. If there are, select [1] for Yes and repeat from Step 3. If there are no more duct detectors, select [2] for No and continue with Step 8. 8. The system will restart in 10 seconds. You can press [1] to restart immediately. Do not select [2] for System Diagnostics. (This feature is for use in testing at the factory.) 9. After the system resets, it will use the new JumpStart configuration.

6.2.1 Input Point Mapping

Input points are assigned to input zones. Any input point can be assigned to any input zone. (Input points can be assigned to one zone only. An input point can be designated as "Unused," which means it has not been assigned to a zone.)

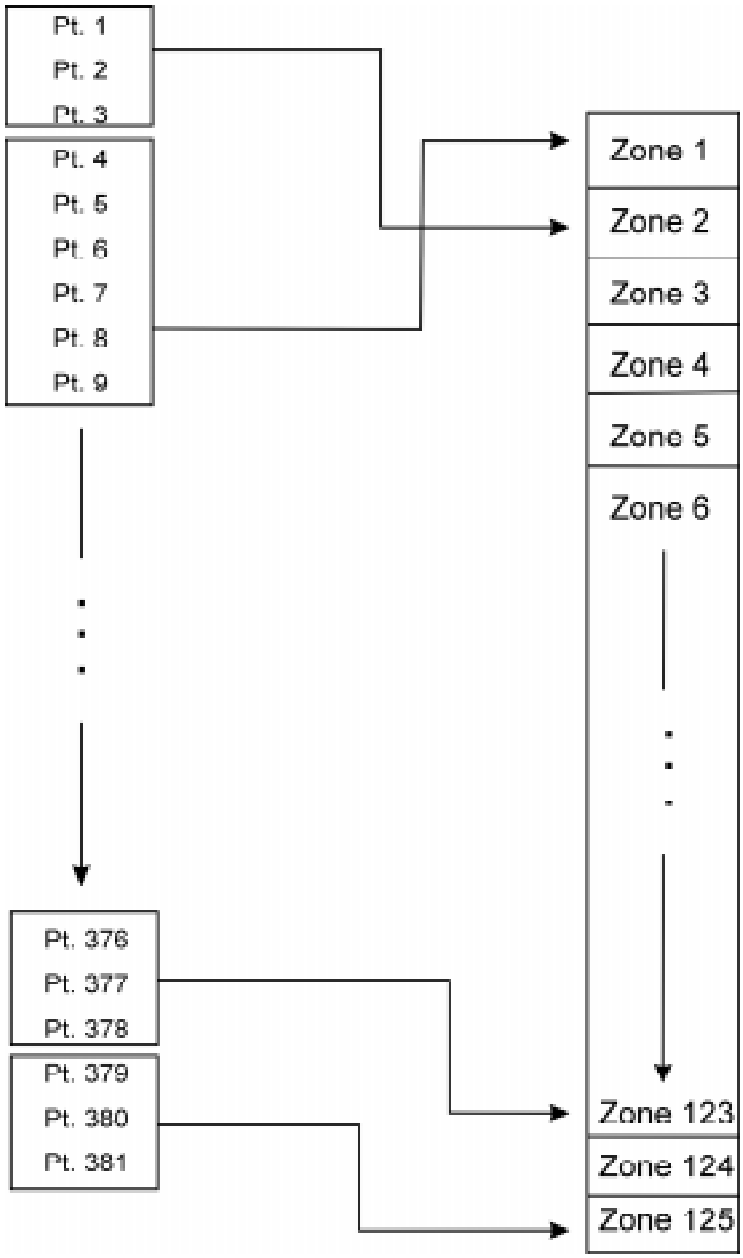


Figure 6-2 Input Point Assignment Example

6.2.3 Zone Event Mapping

There are 8 types of events that can occur in zones (see below). For each event type, you can activate up to 8 output groups and patterns. If it is necessary to map to more than 8 output groups, an output group template may be used (see Section 7.3.5 for information on output group templates). Event types are:

- Manual Pull Alarm
- Water Flow Alarm
- Detector Alarm (heat or smoke detectors)
- Aux 1 and Aux 2 Alarm (user-specified alarm types)
- Pre-alarm
- Supervisory
- Trouble

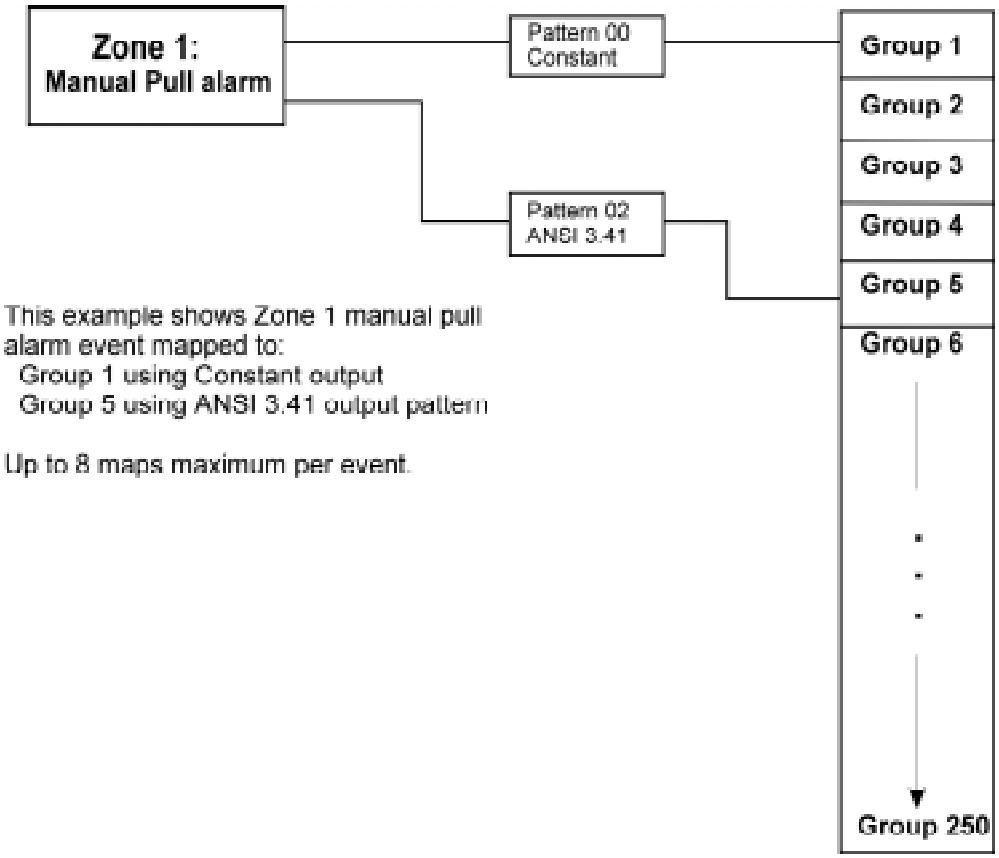


Figure 6-4 Example of Zone Events Mapped to Output Groups and Patterns

6.2.4 Mapping LED Points

Figure 6-6 is a simple example showing how LED points are mapped to zones and output groups. Typically you would create two output groups for each zone, one for alarms and one for troubles. (LED points are available when Models 5865-3/4 and/or 5880 are used with the system.)

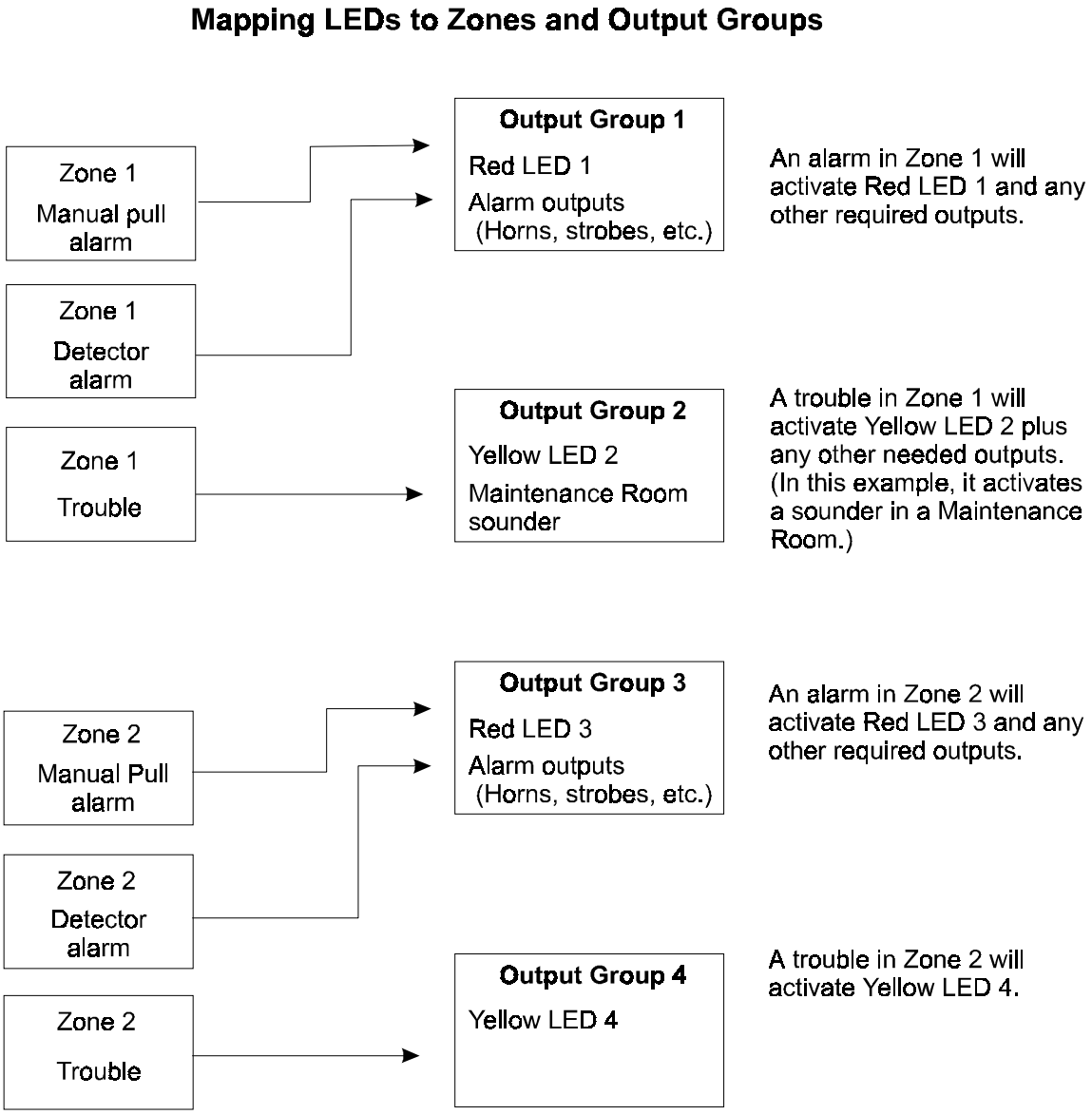

Mapping LEDs to Zones and Output Groups
Zone 1
Manual pull alarm
Zone 1
Detector alarm
Zone 1
Trouble
Output Group 1
Red LED 1
Alarm outputs
(Horns, strobes, etc.)
Output Group 2
Yellow LED 2
Maintenance Room sounder
An alarm in Zone 1 will activate Red LED 1 and any other required outputs.
A trouble in Zone 1 will activate Yellow LED 2 plus any other needed outputs. (In this example, it activates a sounder in a Maintenance Room.)
Zone 2
Manual Pull alarm
Zone 2
Detector alarm
Zone 2
Trouble
Output Group 3
Red LED 3
Alarm outputs
(Horns, strobes, etc.)
Output Group 4
Yellow LED 4
An alarm in Zone 2 will activate Red LED 3 and any other required outputs.
A trouble in Zone 2 will activate Yellow LED 4.

Figure 6-6 Example of LED Points Mapped to Output Groups (applies to Models 5865-3/4 and 5880)

3. Then press [7]. The menus described in Section 7 of this manual will display. Section 6.5 of this manual is a quick reference listing all programmable options and JumpStart defaults.

To Exit Program Mode:

When you have completed working with the menus, press ◁ (left arrow) several times until you are exited from programming mode. Two prompts will display. The first prompt is to make sure you intended to leave the Program Menu (select Yes or No as appropriate). The second prompt is for accepting all changes. If you select No, any changes you have made since you entered the Program Menu will have no effect.

* *Installer Code factory-programmed as 5820.*

6.4.4 Editing Keys

The keys shown in Figure 6-9 are available for use when you are in the Program Menu.

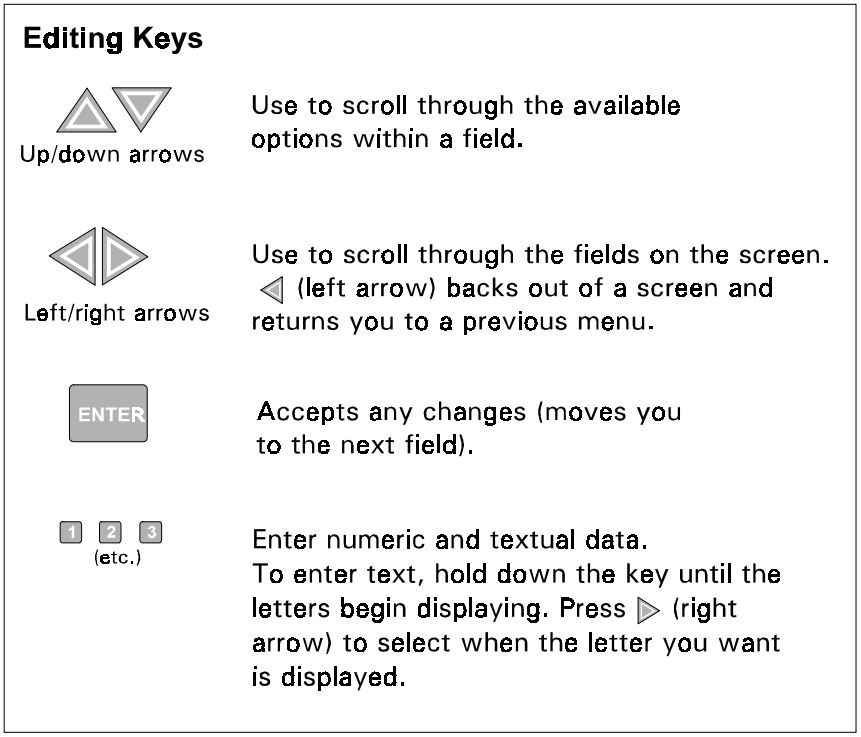

Editing Keys
Up/down arrows
Use to scroll through the available options within a field.
Left/right arrows
Use to scroll through the fields on the screen. (left arrow) backs out of a screen and returns you to a previous menu.
ENTER
Accepts any changes (moves you to the next field).
1 2 3
(etc.)
Enter numeric and textual data. To enter text, hold down the key until the letters begin displaying. Press (right arrow) to select when the letter you want is displayed.

Figure 6-9 Editing Keys Available from Program Menu

Menu	Options/Defaults					Comments
Zone (cont.)	Add Zone	Adds next available zone number.				Sec. 7.2.2
	Delete Zone	Select Zone to be Deleted				Sec. 7.2.3
	View Zone Points	List of all points in selected zone.				Sec. 7.2.4
Group	Edit Group	Select Group	Group Name	Enter Name1	See Section 7.3.1.1.	Sec. 7.3.1.1
				Enter Number1		
				Enter Name2		
				Enter Number2		
			Group Properties	Latching Options	*Non-Latching	
					Latching	
				Silencing Options	*SILENCE	Silenceable
					NON-SIL	Non-Silenceable Sec. 7.3.1
					Auto Unsilence	Auto Un-silenced Sec. 7.3.1
					SIL-INHIB	Silence after inhib delay. Sec. 7.3.1
					SHUT-DOWN	Automatic Shutdown Sec. 7.3.1
				Group Active With:	Group Activates for all Man. Pull	*No
					Group Activates for Fire Drill	*Yes
					Group Activates for Aux 1	*No
					Group Activates for Aux 2	*No
					Ignore Global Cadence	*No
	Add Group					Sec. 7.3.3
	Delete Group	Select Group to Delete				
	View Group Points	Select Group				
	Edit OPG Template	Select Template Number	Select Group			
			Include in template	Yes		
				No		
			Select Pattern	0-16	0 = Constant. Refer to Figure 7-5	

Menu	Options/Defaults					Comments
Point (Cont.)	Internal Pwr and External Power	Enter Pt	Input Point Type (detector/switch)	Select Function		Per JumpStart
		Select Type	UNUSED			
			B NOTIF	Select Group		
			A NOTIF			
			AUX PWR	CONSTANT		
				RESETABLE		
				DOOR		
			B SWITCH	MAN PULL	Select zone	Latch and Non-latch feature only appears for waterflow, supervisory, tamper, zone aux1, zone aux2, system aux1, and system aux2.
				WATERFLOW	Select zone	
				SUPERVSY	Select zone	
				TAMPER	Select zone	
				FIREDRILL		
				SILENCE		
				RESET		
				PAS_ACK	Select zone	
				ZN_AUX1	Select zone	
				ZN_AUX2	Select zone	
				SYS_AUX1		
				SYS_AUX2		
			A SWITCH	Same as B SWITCH		
			B DETECTOR	2-WIRE SMK		
				4-WIRE SMK		
			A DETECTOR	2-WIRE SMK		
				4-WIRE SMK		
		Select Group or Zone Number			Group or Zone selection will appear depending on the type is selected	
		Edit Name	Enter Name1	See Section 7.4		
			Enter Number1			
			Enter Name2			
			Enter Number2			
	5880	Enter Point #	NOTIF			
			UNUSED			
		Select Group #				
		Edit Name	Enter Name1			
			Enter Number1			
			Enter Name2			
			Enter Number2			
	5865	Enter Point #	NOTIF			
			UNUSED			
		Select Group #				
		Edit Name	Enter Name1	See 7.4		
			Enter Number1			
			Enter Name2			
			Enter Number2			

Menu	Options/Defaults					Comments
System Option (cont.)	Phone Lines	Select Phone Line	For each phone line (1 & 2), select:			
			Dialing Prefix	Up to 9 digits	none	Sec. 7.5.2.1
			# of Answer Rings	Range: 00-15	06	Number of rings before panel answers a call from a computer Sec. 7.5.2.2
			Select Dialing Option	TT	TouchTone	Touch Tone
				TT/PL		TouchTone alternating with pulse see Section 7.5.2.3
				PULSE		Pulse dialing
			Rotary Pulse Format	U = 60/40	*U	Sec. 7.5.2.4
				E = 66/34		
			Line Monitor	Yes	*No	Sec. 7.5.2.5
				No		
			Enable Ground Start	Yes = enabled	*N = Disabled	Sec. 7.5.2.6
				No = disabled		
			Answering Machine Bypass	Yes = enabled	*Y = Enabled	Sec. 7.5.2.7
				No = disabled		
	System Event Outputs	Trouble Events	System Trouble	Select Group	None selected	Sec. 7.5.3.1
				Select Cadence		Sec. 7.5.3.1
			Alarm Silence	Select Group	None selected	
				Select Cadence		
			Trbl Silence	Select Group	None selected	
				Select Cadence		
			User Selected	Group Tr	Select Group	
				SBUS Com		
				SBUS Pwr		
				SLC Loop		
				AC Loss		
				Battery		
				Gnd Flt	Select Cadence	
				Phone Ln		
				Account		
				Printer		
				Aux Pwr		
				Sys Sw		
		Sys Alarm Cadence	Fire Drill	Select Cadence	Constant	
			System Aux1			Sec.7.5.3.2
			System Aux2			

Section 7
Programming

This section of the manual manually program the IntelliKnight control panel. Each subsection discusses these menu options in detail. All options described in this section can be performed using the IntelliKnight 5590 downloading software.

Important!

Before any customized programming is done, JumpStart should be run first. After JumpStart is run, thoroughly test the system. The reason the system should be tested after JumpStart is because Jumpstart automatically programs the system, searching for and configuring all SLC and SBUS devices it finds. JumpStart allows you to confirm the integrity of the installation prior to performing any custom programming. After determining that the hardware is properly installed, custom programming can be performed. Refer to Section 6.

7.1 Modules

This section lists the options available under the module option in the program menu. The types of modules available for the 5820 control panel are, 5815 (SLC), 5860 (Keystation), 5824 (Serial/Parallel input/output), 5895 (Input/output Power Supply), 5880 (LED Input/ Output module), and a 5865 (LED Annunciator).

7.1.1 Edit Modules

The features that can be edited when this option is selected are, module name, and class of wiring (Class A or Class B).

To edit an existing module, follow these steps:

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
4. Press 1 to enter module menu.
5. Press 1 to edit a module.
6. Use the ▲ or ▼ arrow to select the module you wish to edit.

5. Press 2 to add a module.
6. From the next screen, select the number that corresponds to the type of module you are adding from the <New Module Type> screen.

   The screen will display "Adding module [#]..." for a few moments. You will be returned to the <Module Programming> screen where you can select a name for the module if desired (see Section 7.1.1.1).

You must save changes when you exit the Program Menu or the new module will not be added.

Note: If you Add a Module that has not been physically connected, the panel will go into trouble after it reinitializes (when you exit the Program Menu). When the new module is attached, the trouble will correct itself automatically the next time you power up the system.

7.1.3 Deleting a Module

If you ever need to delete a module, follow these steps.

You must be in the Installer Menu to perform this task. If necessary, enter the Installer Code.

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

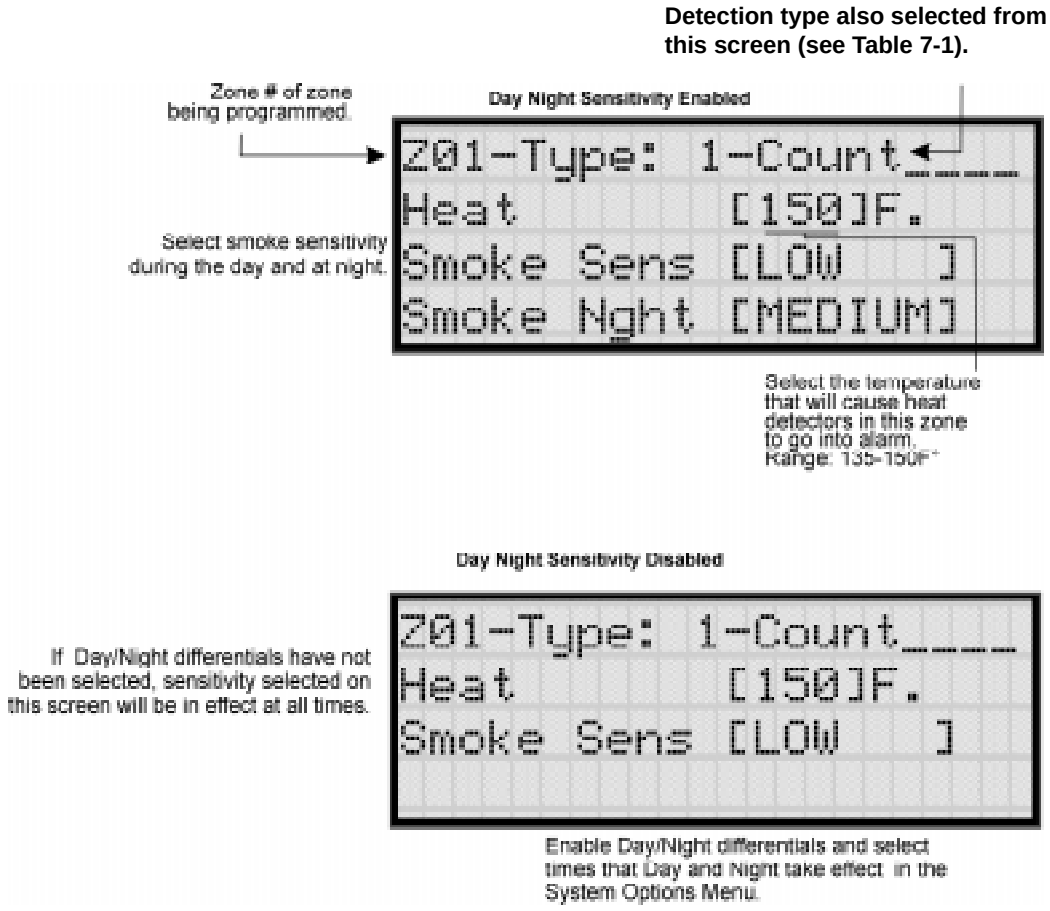
   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
4. Press 1 to enter module menu.
5. Press 3 to delete a module.
6. A warning screen will display. If you want to proceed with deleting the module, select Yes. To cancel, select No.

used with the IntelliKnight 5820.

7.2.1.2 Edit Zone Properties

Zone properties consist of, alarm delay characteristics, heat detector sensitivity, and smoke detector sensitivity.

1. Do steps 1 through 6 of Section 7.2.1.
2. Press 2 to edit the properties of the selected zone.


Detection type also selected from this screen (see Table 7-1).
Zone # of zone being programmed.
Day Night Sensitivity Enabled
Z01-Type: 1-Count
Heat [150]F.
Select smoke sensitivity during the day and at night.
Smoke Sens [LOW]
Smoke Nght [MEDIUM]
Select the temperature that will cause heat detectors in this zone to go into alarm. Range: 135-150F°
Day Night Sensitivity Disabled
If Day/Night differentials have not been selected, sensitivity selected on this screen will be in effect at all times.
Z01-Type: 1-Count
Heat [150]F.
Smoke Sens [LOW]
Enable Day/Night differentials and select times that Day and Night take effect in the System Options Menu.

Heat Detector Sensitivity

Use this feature to set the temperature that heat detectors will respond. The range is 135° to 150° F. All detectors in the zone will respond in the same way.

The Model SD505-AHS Heat Detector is an absolute temperature device. This means that it responds to an alarm immediately if the temperature in the zone goes above the programmed temperature.

5. Enter the temperature that the heat detector will respond.

   Or

   Use the ▽ or △ keys to scroll through the range or enter directly from the number keys on the annunciator.

   Then press ENTER.

Smoke Detector Sensitivity

IMPORTANT!

Drift compensation is automatic for all smoke detectors (photoelectric and ionization). The feature is always in effect, no programming is required. See Section 8.4.10 for information about how to check if a detector is in UL compliance.

All detectors in the zone will respond as programmed in this menu location.

Table 7-2: Detector Sensitivity Choices

Type of Smoke Detector	Choices	Comments
Photoelectric Smoke Detector	Low (3.5% obscurity)	If the day/night sensitivity option is selected, you can have different sensitivity settings during the day and at night. You can determine the days of the week that Day/Night Sensitivity will automatically adjust. You can also designate specific days as Holidays. Holiday and weekend days will use night sensitivity for the entire day
	Medium (2.5% obscurity)	
	High (1.5% obscurity)	
Photoelectric duct Detector	See Note.	Low, Medium and High settings have no effect for photoelectric duct detectors. Photoelectric duct detector sensitivity is always 1.1% per foot. Day and night settings also have no effect on these detectors.
Ionization Smoke Detector	See Note.	Sensitivity for ionization detectors is always 64 MIC (1.1% obscurity per foot) regardless of Low, Medium or High setting. Day and night settings also have no effect on these detectors.
Ionization Duct Detector	See Note.	Low, Medium, or High settings have no effect for ionization duct detectors. Ionization duct detector sensitivity is always 75 MIC (0.8%) regardless of Low, Medium or High setting. Day and night settings also have no effect on these detectors.

Note: Automatic drift compensation is always in effect for all detectors. See Section 8.4.10 for information about how to check if a detector is in compliance.

6. Use the ▽ or △ keys to scroll through the range or enter directly from the number keys on the annunciator.

7. Then press ENTER.

Example or Zone Mapping:

Suppose you want to program Zone 1 so that:

- Any alarm (detector, water flow or manual pull) would activate Output Group 1 using the ANSI cadence pattern.
- Manual pull alarm would activate Output Group 3 using constant output.
- Troubles would activate Output Group 2 using the zone-coded cadence pattern.

To accomplish this you need to access the screen for each event and then select your output groups. Figure 7-4 shows how you would program this application.

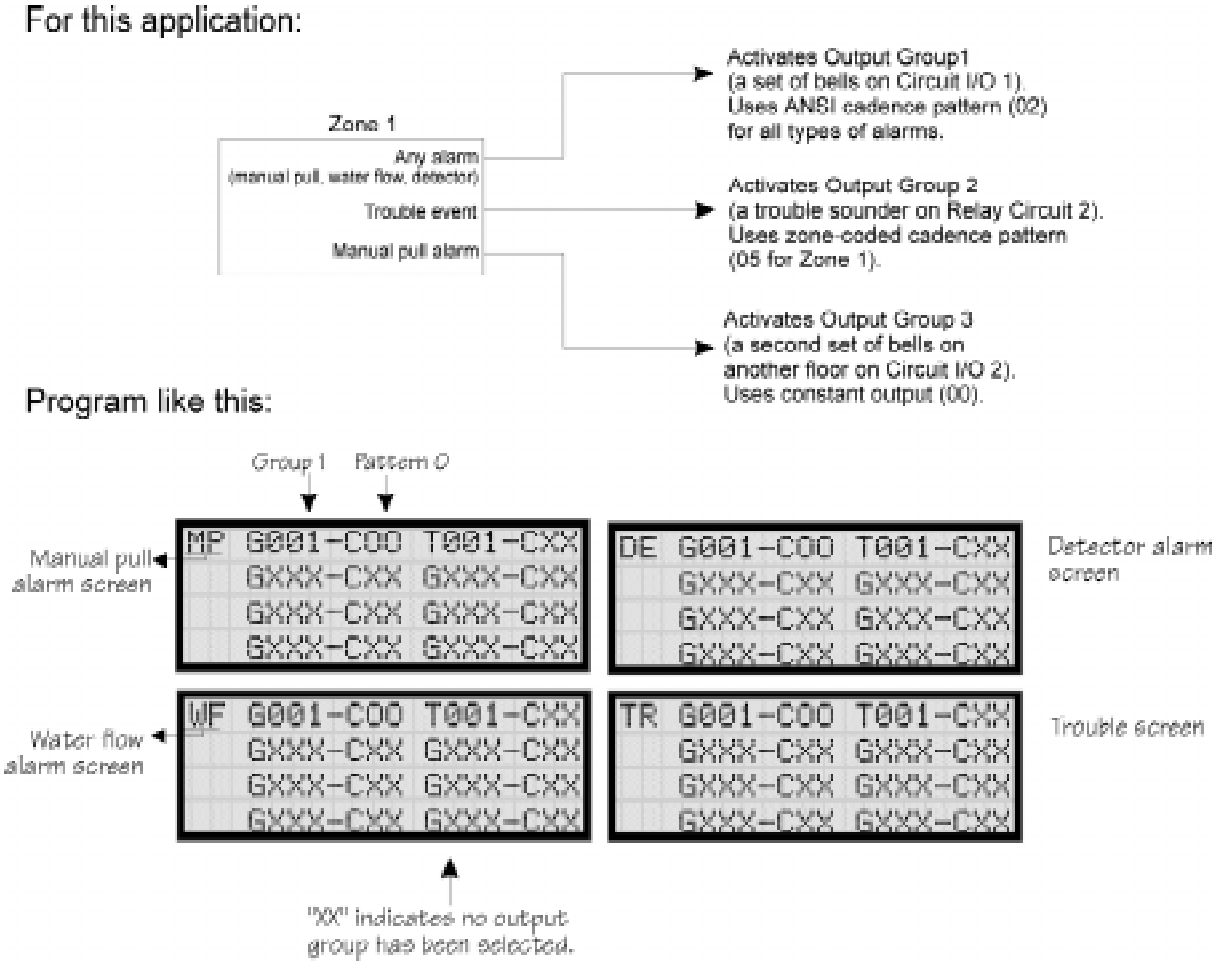


Figure 7-4 Zone Mapping Example

7.2.2 Add Zone

To add a zone, follow these steps:

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
4. Press 2 to enter zone menu.
5. Press 2 to add a zone.

   A zone will be added. The system will assign the next available zone number. Options for this zone can now be programmed through the Zone Edit sub-menu. Up to 125 zones can be used.

7.2.3 Delete Zone

To delete a zone, follow these steps:

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
4. Press 2 to enter zone menu.
5. Press 3 to delete a zone.

   A warning screen will display. If you want to proceed with deleting the zone, select Yes. To cancel, select No.

7.3 Group

An output group is made up of output points that have been programmed to respond in the same way. Output groups simplify programming because you do not have to program each individual point. Once you have defined the characteristics of output groups, you can assign each point to the appropriate group. Up to 250 output groups can be defined.

7.3.1 Edit Group

In the edit group option you can program the name of an output group (Section 7.3.1.1) and change the properties (Section 7.3.1.2) of that group.

To edit a group, follow these steps:

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
4. Press 3 to enter group menu.
5. Press 1 to edit group.
6. Enter the number of the group you wish to edit, then press ENTER.

7.3.1.1 Edit Group Name

7. To edit the group name, press 1.

   A screen similar to the one in Figure 7-7 will display. Select a one- or two-word descriptive name as shown in the diagram. Refer to Appendix B Section B.1 for a list of available words.

Silencing Options

The following silencing options are available for each output group.

Table 7-3: Silencing Options

Option	Description
SILENCE	Silenceable. The output group can be silenced through the SILENCE key.
NON-SIL	Not silenceable. The output group cannot be silenced. Activation of the SILENCE key will be ignored for this output group.
TIME-SIL	Timed Silenced. If this option is selected, the output group can be silenced for a programmed time-frame. If the condition that caused the output to activate has not cleared during the time-frame, the output reactivates. If you select this option, select the time-frame in the DLY: field. Range is 00-60 minutes. (See Figure 7-8 for location of field.)
SIL-INHIB	Timed Silence after Inhibit. If this option is selected, the output group must be audible for a programmed number of minutes before it can be silenced. If the condition that caused the output to activate has not cleared during the time-frame, the output can be silenced. If you select this option, select the timeframe in the DLY: field. Range is 00-60 minutes. (See Figure 7-8 for location of field.)
SHUT-DOWN	If this option is selected, the output group will automatically silence (shut down) after the programmed time period. If you select this option, select the timeframe in the DLY: field. Range is 00-60 minutes. (See Figure 7-8 for location of field.)

Response with System-Wide Conditions

You can select whether an output group will respond to various system-wide occurrences. (See Figure 7-8 for location of this field.)

Table 7-4: Output Group Response Choices

Option	Description
ManPull	Manual Pull Activation. Select Yes if you want this group to activate for all manual pull alarms that occur in the system. *Note: Even though manual pull switches are assigned to zones, activation selected here for manual pull will override zone-programmed activation.*
Fire Drill	Fire Drill Activation. Select Yes if you want this group to activate for fire drills.
Sys Aux1 and Sys Aux2	Select Yes if you want this output group to activate for system-wide Aux1 and Aux2 alarms. (Aux 1 and Aux 2 alarm types are for auxiliary alarm conditions. For example, you might want to use Aux 1 to provide a unique alarm type and sound for a severe weather condition like a tornado.)
Ignore Global Cad	Ignore Global Cadence. If you want to create an output group that can never be overridden, you can select Yes for this option. Selecting No means that system-wide events that have been assigned an output pattern could override the pattern for the output group. For example, suppose you had assigned a set of strobes to Output Group 3. You would never want these strobes to output in a pattern under any circumstances. To make sure this happens, select Yes for Ignore Global Cadence for Output Group 3.

8. To get to this menu item repeat steps 1 through 6 of section 7.3.1.
9. To edit group properties, press 2.

7.3.4 View Group Points

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

   Display reads: `Initializing`
   `Please wait . . .`
4. Press 3 to enter group menu.
5. Press 4 to view group points.
6. Enter the group number, then press ENTER.

7.4 Point

You may need to change characteristics of individual input points (detectors and switches) even after using JumpStart. This section explains how to change options for: type of input point; latching/non-latching status (switches); and name and zone assignment of a point.

7.4.1 Point Programming For 5815 Module

To program for an 5815 Module points, follow these steps:

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

   Display reads: `Initializing`
   `Please wait . . .`
4. Press 4 to enter point menu.
5. Press the ▽ or △ arrows to select the desired module. refer to Section 6.5 Quick Reference Table for available choices.
6. Press ENTER.
7. Enter the number of the point you wish to edit.
8. Press ENTER.

Table 7-6: Point Programming Options for 5815 Modules

Module Type	Type Selection	Function	Latching Option	Comments
Internal and External 5815 (Continued)	SWITCH (Continued)	PAS_ACK		Positive acknowledge switch. This switch must be used in zones programmed as Positive Alarm Sequence (see Table 7-2). If an acknowledge switch closes when an alarm or trouble condition is not already in progress, a trouble will occur. You must use a UL listed normally open, momentary switch type. The switch must be rated at 5V, 100 mA (minimum) and be used with an EOL resistor for supervision.
		ZN_AUX1	Latching	Use these switch types if you want to monitor special zone-level conditions (such as operation of a fan or damper).
			Non Latching	
		ZN_AUX2	Latching	
			Non Latching	
		SYS_AUX1	Latching	Use these switch types if you want to monitor special system-wide conditions (such as operation of a fan or damper).
			Non Latching	
		SYS_AUX2	Latching	
			Non Latching	
		DETECT SW		Used to monitor conventional 4-wire detectors, a contact closure will generate a detector alarm event.
		TAMPER	Latching	Performs identically to a supervisory switch, but will be indicated as a tamper switch on the LCD annunciator.
			Non Latching	
	NOTIF	OUTPUT PT	Select Group	Output Point, a general use notification type. Use for driving standard notification appliances.
		AUX CONST	Select Group	Use constant power for applications that require a constant auxiliary power source. Power is always present at Constant circuits.
		AUX RESET	Select Group	Use for auxiliary power, resettable applications. See Section 4.13.3 for a description of how this option operates.
		AUX DOOR	Select Group	Use for auxiliary power, door holder applications. For example, if you were using an auxiliary power supply for door holders, you would use this option. See Section 4.13.1 for a description of how this option operates.
	RELAY	OUTPUT PT	Select Group	Output Point, a general use relay type. Use for applications requiring a relay, such as fan shutdown, elevator recall, and so on.
		AUX RESET	Select Group	Use for auxiliary power, resettable applications. See Section 4.13.3 for a description of how this option operates.
		AUX DOOR	Select Group	Use for auxiliary power, door holder applications. For example, if you were using an auxiliary power supply for door holders, you would use this option. See Section 4.13.1 for a description of how this option operates.

13. Select the zone by pressing the ▽ or △ arrows.
14. Press ENTER.
15. Edit point name. See Section 7.4.3.1.

    Or

    Press ▷ to skip point name edit.
16. Repeat Steps 1 through 15 for all circuits.

Table 7-7: Menu choices for Internal/External Power Module

Choices	Type Selections	Function Selections for each Type	Comments
Enter Point or Circuit			
Select Type	UNUSED		
	B NOTIF		
	A NOTIF		
	AUX PWR	CONSTANT	Constant auxiliary power.
		RESETTABLE	Resettable auxiliary power.
		DOOR	Door holder auxiliary power.
	B SWITCH	MAN PULL	Refer to comments column of Table 7-6 for description of these options. Latch or Non-latching feature only appears for waterflow, supervisory, tamper, zone aux1, zone aux2, system aux1, and system aux2.
		WATERFLOW	
		SUPERVSY	
		TAMPER	
		FIREDRILL	
		SILENCE	
		RESET	
		PAS_ACK	
		ZN_AUX1	
		ZN_AUX2	
		SYS_AUX1	
		SYS_AUX2	
	A SWITCH	Same as B SWITCH	Used for
	B DETECTOR	2-WIRE SMK	Used for Class B, 2-wire detectors.
		4-WIRE SMK	Used for Class B, 4-wire detectors.
	A DETECTOR	2-WIRE SMK	Used for Class A, 2-wire detectors.
		4-WIRE SMK	Used for Class A, 4-wire detectors.
	UNUSED		
	B NOTIF		
	A NOTIF		
Select Zone/Group			Group or Zone selection will appear depending on the type selected.
Edit Name			See Section 7.1.1.1.

7.4.3.1 Assigning a Name to a Points

You can assign a name to a point to make it easier to recognize on a display.

If you wish to edit the name of a point, follow these instructions:

1. When the Display is flashing on the Edit Name field press ENTER.
2. Enter the number for the Name1or press the ▲ or ▼ arrow to select Name1. Refer to Appendix B Table B-1.
3. Press ENTER.
4. Enter Number1 or press the ▲ or ▼ arrow to select Number1.
5. Press ENTER.
6. Enter the number for the Name2 or press the ▲ or ▼ arrow to select Name2. Refer to Appendix B Table B-1.
7. Press ENTER.
8. Enter Number2 or press the ▲ or ▼ arrow to select Number2.
9. Press ENTER.

If you wish to bypass the Edit Name field press ▶.

7.5.1.1 Edit Accounts

6. From the next menu, select 1 for Edit Account.

   A screen similar to one shown in Figure 7-11 will display. The following subsections describe the options on each field.

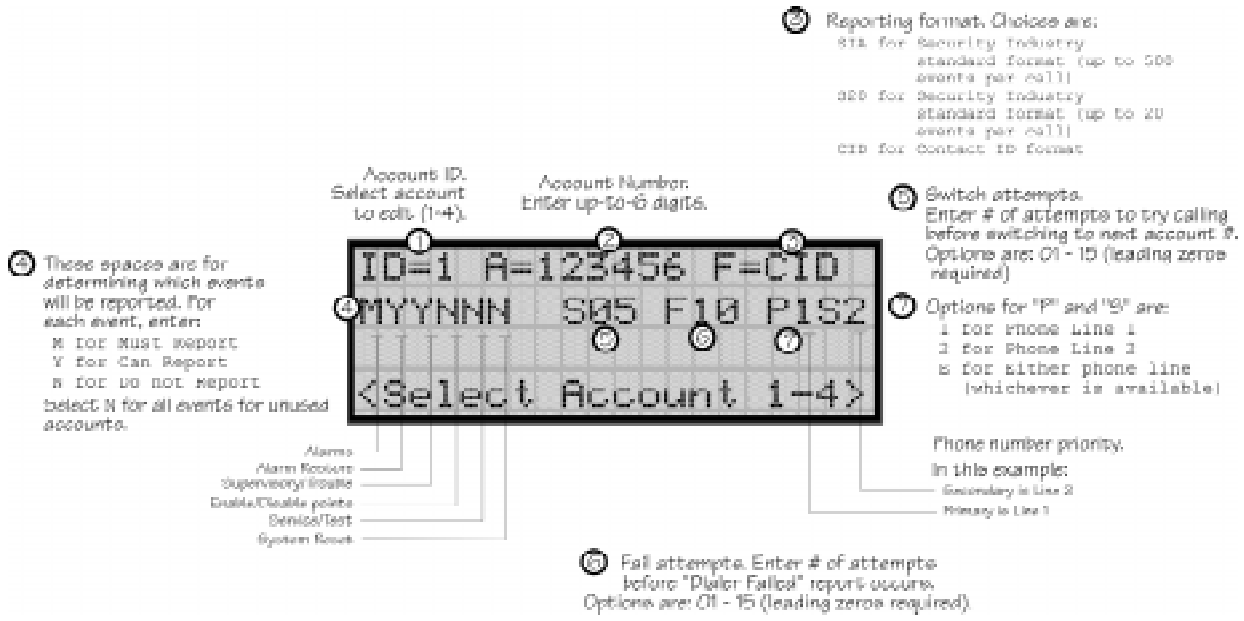

Reporting format. Choices are:
SIA for Security InDustry standard format (up to 500 events per call)
2ID for Security Industry standard format (up to 20 events per call)
CID for Contact ID format
Account ID. Select account to edit. (1-4).
Account Number. Enter up-to-6 digits.
Switch attempts. Enter # of attempts to try calling before switching to next account. Options are: 01 - 15 (leading zeros required)
These spaces are for determining which events will be reported. For each event, enter:
M for Must Report
Y for Can Report
N for Do not Report
Select N for all events for unused accounts.
ID=1 A=123456 F=CID
MYYNNN S05 F10 P1S2
<Select Account 1-4>
Options for "P" and "S" are:
1 for Phone Line 1
2 for Phone Line 2
B for Either phone line (whichever is available)
Alarms
Alarm Restore
Supervisory/Trouble
Enable/Disable points
Service/Test
System Reset
Phone number priority. In this example:
Secondary is Line 2
Primary is Line 1
Fail attempts. Enter # of attempts before "Dialer Failed" report occurs. Options are: 01 - 15 (leading zeros required)

Figure 7-11 Reporting Account Editing Screen

Select Account (ID)

The IntelliKnight 5820 panel provides up to 4 reporting accounts. The priority of an account is based on its account ID. Account 1 is highest priority; Account 4 is lowest. Use Account 1 to report the highest priority events.

7. Press the ▲ or ▼ arrow to select account ID number, then press ENTER.

Edit Account Number

Enter an up-to-6-digit number for each account to identify the account to the central station. See Figure 7-11 for location of this option on the screen. The account number should be compatible with the reporting format used. For example, the Contact ID format transmits up to four digits only.

8. Enter the desired account number (up to 6-digits), then press ENTER.

Fail Attempts

This feature specifies the number of times the dialer should attempt to perform the dial/switch sequence before issuing an account trouble condition. Range is 01 - 15 (Default = 10).

13. Enter the number of fail attempts (or press the ▲ or ▼ arrow), then press ENTER.

Selecting Primary and Secondary Phone Lines

For each account, select which phone line (Line 1 or Line 2) is primary. See Figure 7-11 for an example of how to make this selection.

14. Press the ▲ or ▼ arrow to select line 1 or 2 as primary phone line, then press ENTER.

15. Repeat step 14 for the secondary phone line.

Telephone Number

Enter up to 40 characters for phone number for this account.

The following special characters are available:

Table 7-8: Special Character for Dialing

#	Pound (or number) key on the telephone
*	Star key on the telephone
,	Comma (character for 2-second pause)

Use the number buttons on the annunciator or the up- and down-arrow keys to select special characters. Characters begin displaying after "9". See Figure 7-11 for an example.

6. Select the phone line to be edited (1 or 2) by pressing the ▲ or ▼ arrow, then press ENTER.

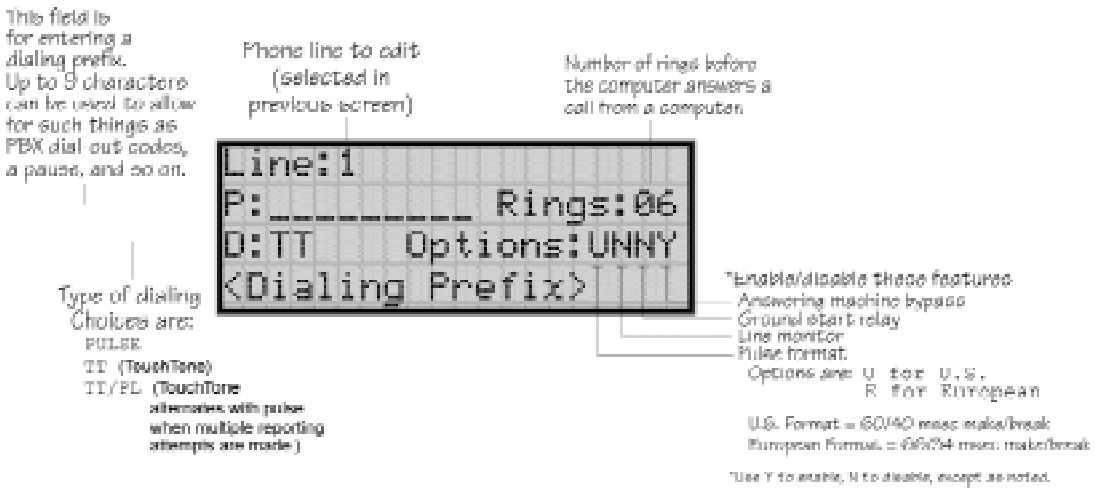

This field is for entering a dialing prefix. Up to 9 characters can be used to allow for such things as PBX dial out codes, a pause, and so on.
Phone line to edit (selected in previous screen)
Number of rings before the computer answers a call from a computer
Line:1
P:_____ Rings:06
D:TT Options:UNNY
<Dialing Prefix>
Type of dialing
Choices are:
PULSE
TT (TouchTone)
TT/PL (TouchTone alternates with pulse when multiple reporting attempts are made)
*Enable/disable these features
Answering machine bypass
Ground start relay
Line monitor
Pulse format:
Options are: U for U.S.
E for European
U.S. Format = 60/40 msec make/break
European Format = 66/34 msec make/break
*Use Y to enable, N to disable, except as noted.

Figure 7-12 Phone Lines Editing Screen

7.5.2.1 Dialing Prefix

Enter up to 8 characters to be used for such things as PBX dial-out codes, a pause, and so on. The following special characters are available:

#	Pound (or number) key on the telephone
*	Star key on the telephone
,	Comma (character for 2-second pause)

Use the number buttons on the annunciator or the up- and down-arrow keys to select special characters. Characters begin displaying after "9". See Figure 7-12 for an example.

7. Enter a dialing prefix (if needed), then press ENTER.

   Or

   Press ◁ to bypass the dialing prefix option.

7.5.2.2 Number of Answer Rings

This option is used in conjunction with the IntelliKnight 5590 Downloading Software. Use the option to determine the number of rings before the panel answers a call from the computer. Range is 00-15 rings. This option is factory-programmed as 06 rings, which should be compatible for most installations where the answering machine bypass feature is used. You may need to adjust it depending on the installation's telephone system.

The selection made here must match the programming for this option in the Communication Configuration dialog box of the 5590 software. See the manual for the software (p/n 151004) if you need more information.

7.5.2.7 Answering Machine Bypass

This option is used in conjunction with the IntelliKnight 5590 Downloading Software. This feature ensures that an answering machine will not interfere with communication between the panel and the computer. If an answering machine is used at the panel site, enable this feature; if an answering machine is not used, disable the feature.

This option is factory-programmed as Yes (enabled).

The selection made here must match the programming for this option in the Communication Configuration dialog box of the 5590 software. See the manual for the software (p/n 151004) if you need more information.

13. Select Y (answering machine bypass enabled) or N (answering machine bypass disabled) by pressing the △ or ▽ arrow, then press ENTER.

7.5.3 Sys. Event Outputs

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

   Display reads: `Initializing`
   `Please wait . . .`
4. From the Program Menu, select 5 for System Options.
5. From the System Options Menu, select 3 for Sys. Event Outputs.

7.5.3.1 Trouble Events

You can map certain system trouble events to an output group. To access the screen for selecting output groups and cadence patterns for system trouble events.

6. Press 1 for Trouble Events. A screen similar to the one in Figure 7-13 will display. Select a group and a cadence pattern for each event as needed for your application. The U: field is for a user-specified trouble condition. You can program an output group and cadence pattern for any of the following events:

Battery	Low battery condition.
Gnd Flt	Ground fault.
Phone Ln	Phone Line 1 or 2 trouble.
Account	Account trouble; cannot report to account.
Printer	Printer trouble. (Currently not supported; do not select.)
Aux Pwr	Auxiliary power trouble.
Sys Sw	Trouble with a system switch.
Group Tr	Trouble with an output group.
SBUS Com	SBUS communication trouble.
SBUS Pwr	SBUS power trouble.
SLC Loop	Trouble on the SLC loop.
AC Loss	AC power lost.

6. Press 2 for System Alarm Cadence.

   A screen similar to the one in Figure 7-14 will display. Select a cadence pattern for these special events if required for your application.

Figure 7-14 Special Cadence Patterns for Fire Drill and Auxiliary Alarm Events

7.5.4 Day/Night Sensitivity Time

If you need to change the time that sensitivity levels take effect (that is, the time that "Day" and "Night" begin), follow these steps.

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

   Display reads: `Initializing`

   `Please wait . . .`

4. From the Program Menu, select 5 for System Options.
5. From the System Options Menu, select 4 for Day/Night Sense.

   A screen similar to the one shown in Figure 7-15 will display.

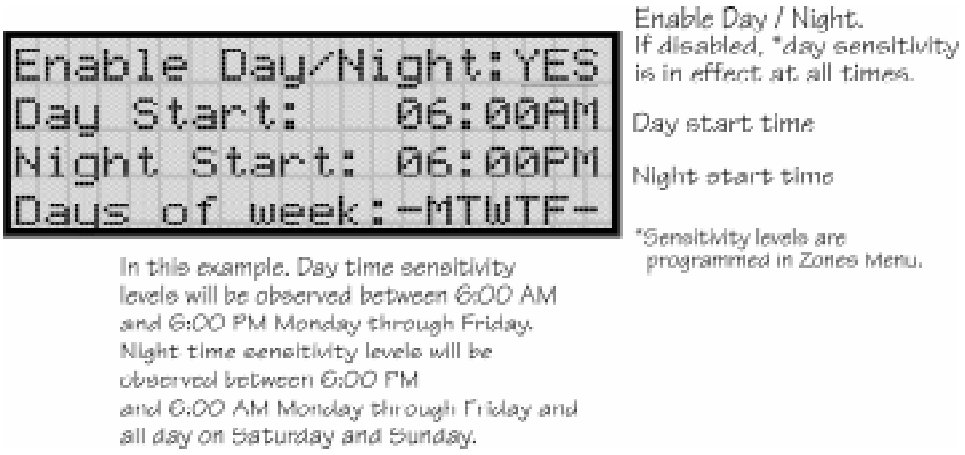

Enable Day/Night:YES
Day Start: 06:00AM
Night Start: 06:00PM
Days of week:-MTWTF-
Enable Day / Night.
If disabled, *day sensitivity is in effect at all times.
Day start time
Night start time
*Sensitivity levels are programmed in Zones Menu.
In this example, Day time sensitivity levels will be observed between 6:00 AM and 6:00 PM Monday through Friday. Night time sensitivity levels will be observed between 6:00 PM and 6:00 AM Monday through Friday and all day on Saturday and Sunday.

Figure 7-15 Changing Day/Night Sensitivity Time

7.5.6 Miscellaneous Options

Through this programming option you can set the water flow delay time, low AC report delay, enable or disable automatic daylight savings time adjustment, clock format, and AC clock frequency.

7.5.6.1 Water Flow Delay

You can program a delay of 0-90 seconds (zero means no delay) to be used in conjunction with a water flow switch. The delay is system-wide. All water flow switches on the system will use the same delay period.

To access the screen for programming water flow delay, follow these steps:

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

   Display reads: `Initializing`
   `Please wait . . .`
4. Select 5 for System Options.
5. Select 6 for Miscellaneous Options.

   A screen similar to the one shown in Figure 7-18 will display.

Figure 7-18 Water Flow Delay Programming Screen

6. Enter the number of seconds (0 to 90) to delay an a water flow switch alarm, then press ENTER.

7.5.6.5 Change AC Line Frequency

The panel's AC frequency is selectable for 50, 60 Hz, or Neither. AC Frequency feature dictates how the control panel will calculate time based on the line frequency used in the installation site. The "Neither" option can be used in areas where the AC line frequency is not dependable and you want the panel to calculate time from the internal crystal. Panels shipped to the United States or Canada will default to 60 Hz. Panels shipped outside the U.S. will default will ship to 50 Hz.

To change the AC line frequency, continue programming from step 9 above:

10. Select 50, 60 or Neither, by pressing the △ or ▽ arrow, then press ENTER.

7.5.7 Edit Library Name

The IntelliKnight 5820 has a built-in library (or list) of 120 9-character words that are available for you to select for naming points, zones, and groups. You can add up to 136 of your own 9-character words to the library which will then be available to select.

Note: Customized words are available to be selected as descriptions of zones, groups and points. If you change a word that is used in more than one location, all descriptions using the word will be changed.

To add word to the built-in library, follow these steps:

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

   Display reads: `Initializing`

   `Please wait . . .`
4. Select 5 for System Options.
5. Select 7 for Miscellaneous Options.

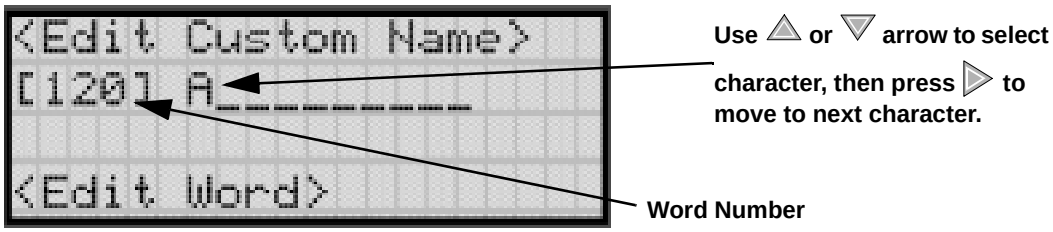


Figure 7-20 Edit Library Word Screen

6. Enter the word number you wish to edit or add, then press ENTER.
7. Select each character of a word by pressing the △ or ▽ arrow, then press ▷ to move to the next character.
8. When word is complete press ENTER. repeat steps 1 through 8 for any additional word.

7.6 JumpStart Autoprogramming

IMPORTANT!

JumpStart is intended to be used prior to performing any custom programming. Each time JumpStart is executed, all options will be reset to their default values. Do not run JumpStart after you have configured the system through programming.

To run JumpStart:

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

   Display reads: `Initializing`
   `Please wait . . .`
4. Select 6 for System Options.
5. Press the ▲ or ▼ arrow to select "Yes" from the warning screen.
6. Press ENTER.

7.8 Access Codes

You can edit the default User and Installer codes through this programming option.

To change a access code:

1. Enter the installer code.
2. Press ENTER to display the installer menu.
3. Select 7 for Program Menu.

   Display reads: `Initializing`
   `Please wait . . .`
4. Select 8 for System Options.
5. Select the access code you wish to edit by pressing either 1 (for User code) or 2 (Installer code).
6. Enter the new code (4 to 7-digits), then press ENTER.
7. Re-enter the same code, then press ENTER again to verify your original entry.

Section 8
System Operation

Operation of the IntelliKnight 5820 is simple. Menus guide you step-by-step through operations. This section of the manual is an overview of the operation menus. Please read this entire section carefully before operating the panel.

User Menu (basic operation) access: Rotate the key on the annunciator or enter the User Code (factory-programmed as 1111).

Installer Menu (access to menu that allows for programming and all operations), enter the Installer Code (factory-programmed as 5820).

8.1 Annunciator Description

Figure 10-1 shows the annunciator that is part of the IntelliKnight board assembly.

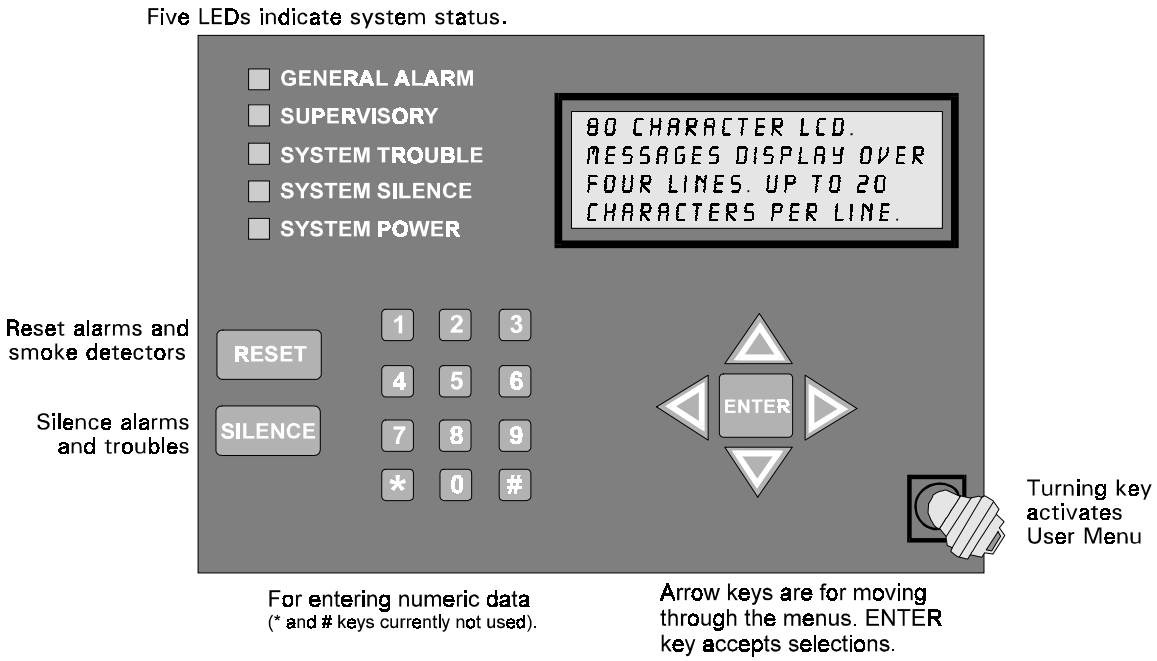

Five LEDs indicate system status.
GENERAL ALARM
SUPERVISORY
SYSTEM TROUBLE
SYSTEM SILENCE
SYSTEM POWER
80 CHARACTER LCD. MESSAGES DISPLAY OVER FOUR LINES. UP TO 20 CHARACTERS PER LINE.
Reset alarms and smoke detectors
RESET
Silence alarms and troubles
SILENCE
1 2 3
4 5 6
7 8 9
* 0 #
ENTER
Turning key activates User Menu
For entering numeric data
(* and # keys currently not used).
Arrow keys are for moving through the menus. ENTER key accepts selections.

Figure 8-1 IntelliKnight 5820 Annunciator

8.1.1 LCD Displays

The IntelliKnight LCD displays system messages, annunciates alarms, supervisories and troubles; provides status information; and prompts for input. These messages can be up to 80 characters, displaying over four lines of 20 characters each. Annunciator keys beep when they are pressed.

8.3.1 User Menu

The User Menu is actually a set of menus for basic system operation. It allows you to perform such operations as setting the date and time, disabling points, and silencing and resetting alarms. This menu displays whenever the User Code is entered or the key is activated. (The User Code is factory-programmed as 1111.)

8.3.2 Installer Menu

The Installer Menu is a set of menus for performing all system operation, maintenance, troubleshooting and programming. It includes all functions of the User Menu and many others. This menu displays whenever the Installer Code is entered. (The Installer Code is factory-programmed as 5820.)

8.3.3 Main Menu Overview (User and Installer)

The chart below is a brief overview of the User and Installer Main Menus. These options are described in greater detail throughout this section of the manual.

User Menu	Installer Menu	Description
1 System Tests	1 System Tests	From here both menus can access Fire Drill and Indicator Test. The Installer Menu can access all system tests.
2 Point Functions	2 Point Functions	From here both menus can enable / disable points. The Installer Menu can access the menu for setting SLC device addresses.
3 Event History	3 Event History	Display event history on the LCD. See Section 8.4.3 for more information.
4 Set Time and Date	4 Set Time and Date	Set time and date for the system.
	5 Printer Options	Options for controlling a printer if attached to the system. If a printer is used, the Model 5824 Serial/Parallel Interface must be used.
	6 Reset Dialer	Cancel any attempt to call the central station. Any calls awaiting additional attempts will be aborted.
	7 Program Menu	Brings up a set of menus for programming the panel, including changing access codes. These options are described in detail in Section 7.
	8 System Info	View system information, including model and serial numbers and revision number and date.
	9 Up/Download	Initiate communication from the panel site between the panel and a computer running the IntelliKnight 5590 Downloading Software.

8.4.4 Conduct a Fire Drill

1. From the User or Installer Menu, press [1] for System Tests.
2. Press [1] for Fire Drill. You will be prompted to press [ENTER].
3. The drill will begin immediately after you press [ENTER].
4. Press any key to end the drill. (If you do not press any key to end the fire drill manually, it will time out automatically after one hour.)

If a fire drill switch has been installed, activating the switch one time will begin the drill; activating a second time will end the drill.

8.4.5 Conduct an Indicator Test

The indicator test checks the annunciator LEDs, PZT, and LCD display.

1. From the Installer Main Menu, press [1] for System Tests.
2. Press [2] for Indicator Test. The system turns on each LED several times, beeping the PZT as it does so. At the same time it scrolls each available character across the LCD. A problem is indicated if any of the following occurs:

- An LED does not turn on;
- You do not hear a beep;
- All four lines of the LCD are not full.

This test takes approximately 15 seconds to complete. You can press any key to end manually while the test is still in progress. When the test ends, you will be returned to the <Test Menu>.

8.4.9 Reset alarms

Press RESET and enter your code or rotate the key at the prompt. If an external reset switch has been installed, activating the switch will reset alarms. If you are already using system menus when you press RESET, you will not need to enter your code or rotate the key.

8.4.10 Check Detector Sensitivity Through Point Status

The IntelliKnight 5820 constantly monitors smoke detectors to ensure that sensitivity levels are in compliance with NFPA 72.

If sensitivity for a detector is not in compliance, the panel goes into trouble, generating a CAL TRBLE condition. A detector enters a CAL MAINT state to indicate that it is approaching an out of compliance condition (but is currently still in compliance).

When a CAL TRBLE condition occurs, the central station receives a detector trouble report ("373" + Zone # for Contact ID format; "FT" + Zone # in SIA format).

To check sensitivity for an individual detector, follow the steps below. Section 8.4.17 provides instructions for printing the status of all detectors in the system.

1. From the User or Installer Menu, press 2 for Point Functions.
2. Press 2 for Point Status.
3. Select the module where the point you want to check is located.
4. Enter the number of the point you want to check and press ENTER.
5. A screen similar to those shown in Figure 8-4 will display.

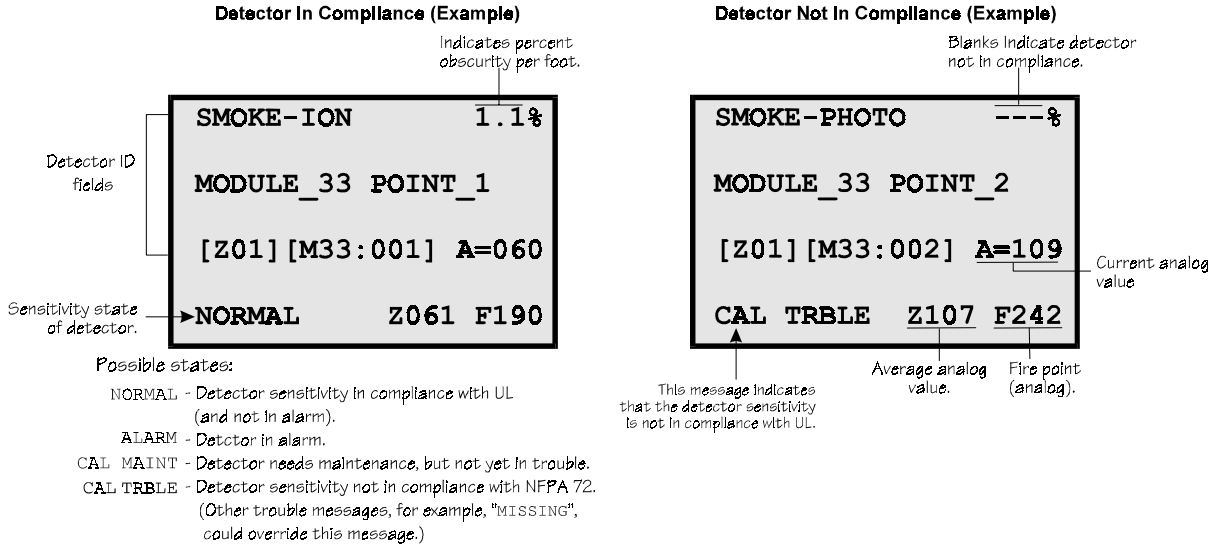

Detector In Compliance (Example)
Indicates percent obscurity per foot.
SMOKE-ION 1.1%
MODULE_33 POINT_1
[Z01][M33:001] A=060
NORMAL Z061 F190
Detector ID fields
Sensitivity state of detector.
Possible states:
NORMAL - Detector sensitivity in compliance with UL (and not in alarm).
ALARM - Detctor in alarm.
CAL MAINT - Detector needs maintenance, but not yet in trouble.
CAL TRBLE - Detector sensitivity not in compliance with NFPA 72. (Other trouble messages, for example, "MISSING", could override this message.)
Detector Not In Compliance (Example)
Blanks indicate detector not in compliance.
SMOKE-PHOTO ---%
MODULE_33 POINT_2
[Z01][M33:002] A=109
CAL TRBLE Z107 F242
Current analog value
This message indicates that the detector sensitivity is not in compliance with UL.
Average analog value.
Fire point (analog).

Figure 8-4 Checking Detector Sensitivity Compliance

If a printer is attached to the system (via a Module 5824 Serial/Parallel Interface), you can print detector status (see Section 8.4.17).

8.4.16 Communicating with a Remote Computer

An installer at the panel site can initiate communications between the panel and a computer running the IntelliKnight 5590 Downloading Software. You can use this feature to upload a panel configuration. For example, if you have made programming changes to an installation on site using an annunciator, you can send your changes to the computer, so that the central station will have the latest data about the installation. Refer to the 5590 manual (P/N 151004) for complete details about communication hardware set-up. To initiate communication, follow the steps below.

Important!

To ensure proper downloading, make sure that the downloading software's revision is equal to or greater than the software revision of the control panel. See Section 8.4.14.

1. From the Installer Main Menu, select [9] for Up/Download.
2. From the next screen that displays, select the communication device. Options are:

[1] = Internal Modem	If you select this option, you will use the panel's built-in modem to call the panel.
[2] = RS232 connection	If you select this option, the panel and a computer are both on-site connected via a 9-pin **straight-through** serial cable.

3. If you are using the panel's internal modem to communicate, you will be prompted to enter a phone number. If you are communicating via the RS232 connection, a phone number is not needed and this step will be skipped.

If the phone number you will be calling is already displayed, press [ENTER]. Continue with Step 4.

If the phone number you will be calling is not already displayed, enter the number and press [ENTER]. The number you enter will become the default phone number. A phone number can be up to 40 digits long and can contain the following special characters.

#	Pound (or number) key on the telephone
*	Star key on the telephone
,	Comma (character for 2-second pause)

Use the number buttons on the annunciator or the up- and down-arrow keys to select special characters. Characters begin displaying after "9".

4. You will be prompted to enter an account number. If the account number you want to use is already displayed, just press [ENTER] to begin communication.

   If the account number displayed is not the correct one, enter the account number and press [ENTER] to begin communication. The number you enter will become the default account number.

5. The panel will attempt to communicate with the computer. If communication was established, the upload task you created will be placed on the 5590 job queue, awaiting processing. When processing is completed, an "Unsolicited Upload" task will appear in the queue.

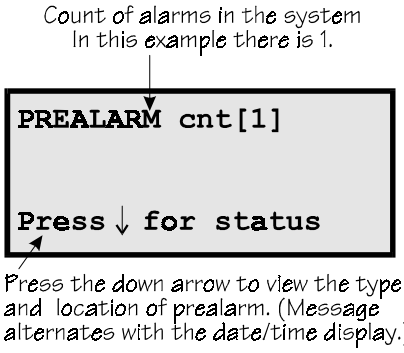
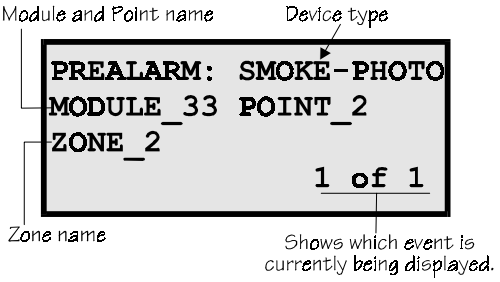
8.5 Operation Mode Behavior

The IntelliKnight 5820 panel can be in one of seven conditions at any given moment: Normal, Alarm, Prealarm, Supervisory, Trouble, Silenced, and Reset. Table 10-1 describes the behavior of the panel in each of these modes.

Table 8-1: Operation Mode Behavior

Operation Mode	Occurs When	System Behavior	In This Mode You Can
Normal	No alarm or trouble condition exists and menus are not in use.	SYSTEM POWER LED is on. The All Systems Normal display indicates that the system is in normal mode. IntelliKnight Model 5820 ALL SYSTEMS NORMAL 01/05/97 07:13:05AM The current date and time display on the last line of the LCD.	Enter the appropriate code to activate the User or Installer Menu, or rotate the key to activate the User Menu.
Alarm	A smoke detector goes into alarm or a pull station is activated.	The dialer seizes control of the phone line and calls the central station. The on-board annunciator sounds a loud, steady beep (any notification devices attached to the system will also sound). GENERAL ALARM LED flashes. The LCD displays a screen similar to this one. Count of alarms in the system. In this example there are 5. ALARM cnt[5] Press ↓ for status Press the down arrow to view the type and location of alarm. (Message alternates with the date/time display.)	Press the down arrow to view the alarm. A screen similar to this one displays. Module and Point name Device type ALARM: MAN_PULL MODULE_33 POINT_2 ZONE_2 3 of 5 Zone name Shows which event is currently being displayed. In this example, there are 5 alarms, the third is being displayed. Press SILENCE and enter an access code (or activate the key) to silence the annunciator (and any notification devices attached to the system). When the alarm condition clears, press RESET and enter a code (or activate the key) to restore the panel to normal.

Table 8-1: Operation Mode Behavior

Operation Mode	Occurs When	System Behavior	In This Mode You Can
Prealarm	A single detector trips in a 2-Count zone. (2-Count means two detectors must trip before an alarm is reported.)	Touchpad PZT beeps. The LCD displays a screen similar to this one. 	Press ▽ (down arrow) to view the prealarm. A screen similar to this one displays.  All system operations are available in this mode.
Reset	The RESET button is pressed followed by a valid code or rotation of the key.	All LEDs are on briefly then the LCD displays "ALARM RESET IN PROGRESS". If the reset process completes normally, the date and time normal mode screen displays.	Menus are not available during the reset process.
Silenced	An alarm or trouble condition has been silenced but still exists. To silence alarms and troubles, press SILENCE followed by the Installer or User Code or rotate the key.	SYSTEM SILENCE LED is on. SYSTEM TROUBLE, SUPERVISORY or GENERAL ALARM LED (depending on condition) is on. The annunciator (and any notification devices attached to the system) will be silenced.	Press ▽ (down arrow) to view the location of the alarm or trouble. When the condition no longer exists, the SYSTEM SILENCED and SYSTEM TROUBLE LED, SUPERVISORY or GENERAL ALARM LEDs turn off.

Section 9
Reporting

This section lists receivers that are compatible with the 5820 and reporting codes sent for SIA and Contact ID formats.

9.1 Receivers Compatible with the 5820

Table 11-1 shows receivers compatible with the IntelliKnight 5820.

Table 9-1: Receivers Compatible with the 5820

Manufacturer	Model	Format
Silent Knight	Model 9800	SIA and Contact ID
	Model 9000 (SIA formats)	SIA
Ademco	Model 685 (Contact ID)	Contact ID
Sur-Gard	SG-MLR2-DG (V. 1.64 or higher)	SIA and Contact ID
Osborne Hoffman	Quickalert	SIA and Contact ID

Table 9-2: Ademco Contact ID Output

Event Description	Event Family	Event Qualifier 1=New, 3= Restore	Event Code	Group #	Zone / Contact ID #
Printer paper restored.	Trouble	3	335	Exp ID	000
Printer offline.	Trouble	1	336	Exp ID	000
Printer back online.	Trouble	3	336	Exp ID	000
Auto Dialer Test Communication Trouble	Trouble	1	350	0	Line #
Auto Dialer Test Communication Trouble Restore	Trouble	3	350	0	Line #
Phone line 1 trouble detected	Trouble	1	351	00	000
Phone line 1 trouble restore	Trouble	3	351	00	000
Phone line 2 trouble detected	Trouble	1	352	00	000
Phone line 2 trouble restore	Trouble	3	352	00	000
Unable to report to an account	Trouble	1	354	Acct #	Acct #
Report to an account successful	Trouble	3	354	Acct #	Acct #
Water flow switch trouble	Trouble	1	373	00	Zone
Manual pull switch trouble	Trouble	1	373	00	Zone
Detector trouble	Trouble	1	373	00	Zone
Zone-based Aux 1 switch trouble	Trouble	1	373	01	Zone
Zone-based Aux 2 switch trouble	Trouble	1	373	02	Zone
Supervisory switch trouble	Trouble	1	373	00	Zone
Water flow switch trouble restore	Trouble	3	373	00	Zone
Manual pull switch trouble restore	Trouble	3	373	00	Zone
Detector trouble restore	Trouble	3	373	00	Zone
Zone based, AUX 1 switch trouble restore	Trouble	3	373	01	Zone
Zone based, AUX 2 switch trouble restore	Trouble	3	373	02	Zone
Supervisory switch trouble restore	Trouble	3	373	00	Zone
System-based AUX1 switch trouble	Trouble	1	373	01	000
System based AUX 2 switch trouble	Trouble	1	373	02	000
External Reset/Silence/Fire Drill switch trouble	Trouble	1	373	00	000
System-based AUX1 switch trouble restore	Trouble	3	373	01	000
System-based AUX2 switch trouble restore	Trouble	3	373	02	000
External Reset/Silence Fire Drill trouble restore	Trouble	3	373	00	000
Positive Alarm Sequence acknowledge switch trouble	Trouble	1	373	00	Zone
Positive Alarm Sequence acknowledge switch trouble restore	Trouble	3	373	00	Zone
An unexpected SLC device has been detected.	Trouble	1	380	Exp ID	Pnt #
An unexpected SLC device has been removed.	Trouble	3	380	Exp ID	Pnt #
User initiated a system reset	Restore/Reset	1	401	00	000
Remote programming ended normally.	Trouble	1	412	00	000
Remote programming aborted or ended with errors.	Trouble	1	413	00	000

Table 9-2: Ademco Contact ID Output

Event Description	Event Family	Event Qualifier 1=New, 3= Restore	Event Code	Group #	Zone / Contact ID #
Zone-based AUX 1 switch input has been re-enabled.	Disable	3	571	Exp ID	Pnt #
Zone-based AUX 2 switch input has been re-enabled.	Disable	3	571	Exp ID	Pnt #
Positive alarm sequence acknowledge switch has been re-enabled.	Disable	3	571	Exp ID	Pnt #
A detection acknowledge switch has been re-enabled.	Disable	3	571	Exp ID	Pnt #
A fire drill switch has been re-enabled.	Disable	3	571	Exp ID	Pnt #
A silence switch has been re-enabled.	Disable	3	571	Exp ID	Pnt #
A reset switch has been re-enabled	Disable	3	571	Exp ID	Pnt #
A system-based AUX 1 switch input has been re-enabled.	Disable	3	571	Exp ID	Pnt #
A system-based AUX 2 switch input has been re-enabled.	Disable	3	571	Exp ID	Pnt #
A constant on auxiliary power output has been re-enabled.	Disable	3	571	Exp ID	Pnt #
A resettable auxiliary power output has been re-enabled.	Disable	3	571	Exp ID	Pnt #
A door holder auxiliary power output has been re-enabled.	Disable	3	571	Exp ID	Pnt #
User has initiated dialer test.	Test	1	601	00	Channel #
Periodic test event.	Test	1	602	00	Channel #
Fire drill has begun.	Test	1	604	00	000
Fire drill has ended.	Test	3	604	00	000
Walk test begin.	Test	1	607	00	000
Walk test end.	Test	3	607	00	000
SLC address programming started; system has been shut down.	Test	1	607		
SLC address programming ended; system has been re-enabled.	Test	3	607		
Panel date has been changed.	Trouble	1	625	00	000
Panel time has been changed.	Trouble	1	625	00	000
Local programming begin.	Trouble	1	627	00	000
Remote programming begin.	Trouble	1	627	00	000
Local programming ended normally.	Trouble	1	628	00	000
Local programming aborted or ended with errors.	Trouble	1	628	00	000

Table 9-3: SIA Dialer Output

Event Description	Event Family	Module ID# (if any)	SIA Event Code	Parameter (if any)
Manual pull switch trouble	Trouble		FT	Zone
Detector trouble	Trouble		FT	Zone
Positive Alarm Sequence acknowledge switch trouble	Trouble		FT	Zone
Notification output trouble	Trouble		FT	1000+Grp
Notification output has been reenabled	Disable	pi Exp. ID	FU	Pnt #
Manual pull switch has been reenabled	Disable	pi Exp. ID	FU	Pnt #
Conventional detector input has been re-enabled	Disable	pi Exp. ID	FU	Pnt #
Addressable photoelectric detector has been re-enabled	Disable	pi Exp. ID	FU	Pnt #
Addressable heat detctor has been re-enabled	Disable	pi Exp. ID	FU	Pnt #
Addressable ionization detector has been re-enabled	Disable	pi Exp. ID	FU	Pnt #
Addressable beam detector has been re-enabled.	Disable	pi Exp. ID	FU	Pnt #
Positive alarm sequence acknowledge switch has been re-enabled.	Disable	pi Exp. ID	FU	Pnt #
A detection acknowledge switch has been re-enabled.	Disable	pi Exp. ID	FU	Pnt #
A fire drill switch has been re-enabled.	Disable	pi Exp. ID	FU	Pnt #
A silence switch has been re-enabled.	Disable	pi Exp. ID	FU	Pnt #
A reset switch has been re-enabled	Disable	pi Exp. ID	FU	Pnt #
A constant on auxiliary power output has been re-enabled.	Disable	pi Exp. ID	FU	Pnt #
A resettable auxiliary power output has been re-enabled.	Disable	pi Exp. ID	FU	Pnt #
A door holder auxiliary power output has been re-enabled.	Disable	pi Exp. ID	FU	Pnt #
Panel date has been changed.	Trouble		JD	
Panel time has been changed.	Trouble		JT	
Local programming begin.	Trouble		LB	
Phone line trouble restore	Trouble		LR	Line #
Local programming ended normally.	Trouble		LS	
Phone line trouble detected	Trouble		LT	Line #
Local programming aborted or ended with errors.	Trouble		LU	
User initiated a system reset	Restore/Reset		OR	
Remote programming begin.	Trouble		RB	
Periodic test event.	Test		RP	Channel #
Initial Power Up.	Trouble		RR	
Remote programming ended normally.	Trouble		RS	
Unable to report to an account	Trouble		RT	Acct #
Remote programming aborted or ended with errors.	Trouble		RU	
User has initiated dialer test.	Test		RX	Channel #
Water flow switch alarm.	Alarm		SA	Zone
Water flow switch disabled	Disable	pi Exp. ID	SB	Pnt #
Supervisory/Tamper switch input has been disabled	Disable	pi Exp. ID	SB	Pnt #
Water flow switch alarm restore	Restore/Reset		SH	Zone
Supervisory/Tamper switch trouble restore	Trouble		SJ	Zone

Table 9-3: SIA Dialer Output

Event Description	Event Family	Module ID# (if any)	SIA Event Code	Parameter (if any)
Printer offline.	Trouble		VZ	
An unexpected SLC device has been detected.	Trouble	pi Exp. ID	XE	Pnt #
An unexpected SLC device has been removed.	Trouble	pi Exp. ID	XI	Pnt #
Auto Dialer Test Communication Trouble	Trouble		YC	Line #
Checksum error.	Trouble		YF	
Auto dialer Test Communication Trouble Restore	Trouble		YK	Line #
Report to an account successful	Trouble		YK	Acct #
Ground fault condition detected	Trouble		YP	Exp. ID
Ground fault condition restore	Trouble		YQ	Exp. ID
Battery voltage restore	Trouble		YR	Exp. ID
Battery voltage low	Trouble		YT	Exp. ID

Section 10
Testing and Troubleshooting

10.1 Troubleshooting

This section of the manual offers suggestions for troubleshooting hardware problems. Please read this section if you encounter a problem when installing the 5820. If these suggestions do not solve your problem or if you encounter a problem that is not listed here, contact Silent Knight Technical Support at 800-328-0103 for assistance.

10.2 Common Problems

Problem	Possible Cause / Suggested Actions
Trouble message "DBL ADDR" (Double Address) displays on LCD.	An address has been assigned to more than one detector. Correct the address following the procedure described in Section 5.10.
Auxiliary power or notification circuits have incorrect polarity.	Correct polarity. For notification and auxiliary power circuits: When in alarm or powered, terminals labeled "X" are positive, terminals labeled "O" are negative.
SLC devices are not being recognized (trouble message "Missing" displays).	Check hardware connections. If devices are physically connected, make sure wiring is correct (see Section 5.3). For the main panel, the positive side of device must be connected to terminal 34; the negative side must be connected to Terminal 33. For 5815 devices, make sure the device connects to the 5815 via the SLC OUT terminals. There can be only one SLC loop on the main panel and on each 5815 module. Do not connect devices to terminals labeled SLC IN.
	Make sure SLC devices have been addressed properly following the procedure described in Section 5.10. For contact monitor modules, which are addressed using dipswitches, the dipswitch must be set to the correct address before power is applied to the SLC loop. If this procedure is not followed, the device will have an incorrect address.
	Make sure correct polarity has been observed for SLC device wiring. See Section 5.3.

10.3 Built-in Troubleshooting and Testing Tools

The IntelliKnight fire control panel has several built-in testing and troubleshooting tools that can be utilized to save time while testing and troubleshooting points and SLC devices.

10.3.1 SLC Device Locator

SLC device locator can be used to locate a device on a SLC loop.

Follow these steps to locate a particular SLC device:

1. Select 2 (Point Functions) from the Installer Menu.
2. Select 4 (SLC Dev Locator).

   A message similar to the one shown in Figure 10-1 will display.

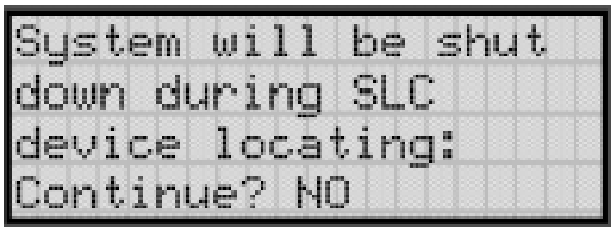


Figure 10-1 Shut Down Warning

3. Press the ▲ or ▼ arrow to toggle NO to YES then press ENTER.

   If NO is chosen you will exit back to the Point Function menu.

   If Yes is chosen the system will cease normal operation leaving the premise unprotected.
4. Select the SLC loop.
5. Enter the SLC address of the device you wish to locate.

   The LED on the selected device will start flashing.
6. Press any key to exit SLC device locator function.

Note: Once you exit the system will resume normal operation.

10.3.3 I/O Point Control

This feature allows you to toggle any output on or off and trip any input device. This can be useful to test a point's output mapping.

Follow these steps to control an I/O point:

1. Select 2 (Point Functions) from the Installer Menu.
2. Select 6 (I/O Point Control).
3. Select the Module the point is on.
4. Enter the zone number , or press the ▲ or ▼ arrow to select the point you wish to test, then press ENTER.
5. Press ENTER to generate an alarm for an input point or activate an output point.
6. To exit press ◀.

Section 11
Installation Records

This section of the manual is for you to use if you wish to track of how points, zones, and groups have been programmed.

11.1 SLC Point Record

You can use the chart that begins below to keep track of SLC points.

Default addresses for ID: On-board: = 33
5815-1: = 1
5815-2: = 2

Table 11-1: Installation Record

Module	Addr	Zone / Group	Description	Module	Addr	Zone/ Group	Description
On-board	1			On-board	25		
On-board	2			On-board	26		
On-board	3			On-board	27		
On-board	4			On-board	28		
On-board	5			On-board	29		
On-board	6			On-board	30		
On-board	7			On-board	31		
On-board	8			On-board	32		
On-board	9			On-board	33		
On-board	10			On-board	34		
On-board	11			On-board	35		
On-board	12			On-board	36		
On-board	13			On-board	37		
On-board	14			On-board	38		
On-board	15			On-board	39		
On-board	16			On-board	40		
On-board	17			On-board	41		
On-board	18			On-board	42		
On-board	19			On-board	43		
On-board	20			On-board	44		
On-board	21			On-board	45		
On-board	22			On-board	46		
On-board	23			On-board	47		
On-board	24			On-board	48		

Table 11-1: Installation Record

Module	Addr	Zone / Group	Description
5815-1	1		
5815-1	2		
5815-1	3		
5815-1	4		
5815-1	5		
5815-1	6		
5815-1	7		
5815-1	8		
5815-1	9		
5815-1	10		
5815-1	11		
5815-1	12		
5815-1	13		
5815-1	14		
5815-1	15		
5815-1	16		
5815-1	17		
5815-1	18		
5815-1	19		
5815-1	20		
5815-1	21		
5815-1	22		
5815-1	23		
5815-1	24		
5815-1	25		
5815-1	26		
5815-1	27		
5815-1	28		
5815-1	29		
5815-1	30		
5815-1	31		
5815-1	32		
5815-1	33		
5815-1	34		
5815-1	35		
5815-1	36		
5815-1	37		
5815-1	38		
5815-1	39		
5815-1	40		
5815-1	41		

Module	Addr	Zone/ Group	Description
5815-1	42		
5815-1	43		
5815-1	44		
5815-1	45		
5815-1	46		
5815-1	47		
5815-1	48		
5815-1	49		
5815-1	50		
5815-1	51		
5815-1	52		
5815-1	53		
5815-1	54		
5815-1	55		
5815-1	56		
5815-1	57		
5815-1	58		
5815-1	59		
5815-1	60		
5815-1	61		
5815-1	62		
5815-1	63		
5815-1	64		
5815-1	65		
5815-1	66		
5815-1	67		
5815-1	68		
5815-1	69		
5815-1	70		
5815-1	71		
5815-1	72		
5815-1	73		
5815-1	74		
5815-1	75		
5815-1	76		
5815-1	77		
5815-1	78		
5815-1	79		
5815-1	80		
5815-1	81		
5815-1	82		

Table 11-1: Installation Record

Module	Addr	Zone / Group	Description
5815-2	35		
5815-2	36		
5815-2	37		
5815-2	38		
5815-2	39		
5815-2	40		
5815-2	41		
5815-2	42		
5815-2	43		
5815-2	44		
5815-2	45		
5815-2	46		
5815-2	47		
5815-2	48		
5815-2	49		
5815-2	50		
5815-2	51		
5815-2	52		
5815-2	53		
5815-2	54		
5815-2	55		
5815-2	56		
5815-2	57		
5815-2	58		
5815-2	59		
5815-2	60		
5815-2	61		
5815-2	62		
5815-2	63		
5815-2	64		
5815-2	65		
5815-2	66		
5815-2	67		
5815-2	68		
5815-2	69		
5815-2	70		
5815-2	71		
5815-2	72		
5815-2	73		
5815-2	74		

Module	Addr	Zone/ Group	Description
5815-2	75		
5815-2	76		
5815-2	77		
5815-2	78		
5815-2	79		
5815-2	80		
5815-2	81		
5815-2	82		
5815-2	83		
5815-2	84		
5815-2	85		
5815-2	86		
5815-2	87		
5815-2	88		
5815-2	89		
5815-2	90		
5815-2	91		
5815-2	92		
5815-2	93		
5815-2	94		
5815-2	95		
5815-2	96		
5815-2	97		
5815-2	98		
5815-2	99		
5815-2	100		
5815-2	101		
5815-2	102		
5815-2	103		
5815-2	104		
5815-2	105		
5815-2	106		
5815-2	107		
5815-2	108		
5815-2	109		
5815-2	110		
5815-2	111		
5815-2	112		
5815-2	113		
5815-2	114		

Appendix A
Compatible Devices

A.1 Two-Wire Smoke Detectors

The table below lists two-wire smoke detectors that are compatible with the IntelliKnight fire control panel. The table is organized by manufacturer. The columns show the number of detectors per loop that can be used.

Table A-1: Compatible Two-Wire Smoke Detectors

Manufacturer	Model Name or Number *(Base model name or number in parentheses.)*	Compatibility ID		# per Loop
		Head	Base	
Apollo	55000-350 (45681-200)	55000-350	45681-200	24 / loop
	55000-250 (45681-200)	55000-250	45681-200	24 / loop
Detection Systems	DS250 (MB2W or MB2WL)	B	A	18 / loop
	DS250HD (MB2W or MB2WL)	B	A	18 / loop
	DS250TH (MB2W or MB2WL)	B	A	18 / loop
ESL	429C (S10A)	N/A	S10A	30 / loop
	429CRT (S11A)	N/A	S11A	30 / loop
	429CST (S11A)	N/A	S11A	30 / loop
	429CT (S10A)	N/A	S10A	30 / loop
	609U01-11	S10	S00	40 / loop
	609U02-11	S10	S00/S03	40 / loop
	611U (601U or 602U)	S10	S00/S03	40 / loop
	611UD (601U or 602U)	S10	S00/S03	40 / loop
	611UT (601U or 602U)	S10	S00/S03	40 / loop
	612U (601U or 602U)	S10	S00/S03	40 / loop
	612UD (601U or 602U)	S10	S00/S03	40 / loop
	711U (701E or 701U)	N/A	S10A	25 / loop
	712U (701E or 701U)	N/A	S10A	25 / loop
	713-5U (702E or 701U)	N/A	S10A	25 / loop
	713-6U (702E or 701U)	N/A	S10A	25 / loop
	721-U (S10A)	N/A	S10A	30 / loop
	721-UT (S10A)	N/A	S10A	30 / loop
Falcon	525	FDT1	N/A	17 / loop
	525T	FDT1	N/A	17 / loop

A.3 Notification Appliances

For proper operation, you must use polarized devices with a Model 7628 4.7k ohm EOL resistor on each loop. All supervised notification applicances used with the 5820 must be polarized.

The chart below lists notification appliances compatible with the 5395.

Manufacturer	Model	Type
Faraday	446	Vibrating Bell
Faraday	476	Vibrating Bell
Faraday	477	Single Stroke Bell
Faraday	5333	Multi-Tone Horn)
Faraday	5336	Multi-Tone Horn/Strobe
Faraday	5337	Multi-Tone Horn/Strobe
Faraday	5338	Multi-Tone Horn/Strobe
Faraday	5343	Single Tone Horn/Strobe
Faraday	5346	Electronic Horn with Strobe
Faraday	5347	Electronic Horn with Strobe
Faraday	5348	Single Tone Horn/Strobe
Faraday	5373	8-Tone Horn/Strobe
Faraday	5376	8-Tone Horn/Strobe
Faraday	5377	8-Tone Horn/Strobe
Faraday	5378	8-Tone Horn/Strobe
Faraday	5383	8-Tone Horn/Strobe with Sync Strobe
Faraday	5386	8-Tone Horn/Strobe with Sync Strobe
Faraday	5387	8-Tone Horn/Strobe with Sync Strobe
Faraday	5388	8-Tone Horn/Strobe with Sync Strobe
Faraday	5405	Sync Control Unit
Faraday	5508	Single Gang Sync Strobe
Faraday	5509	Strobe
Faraday	5510	Strobe
Faraday	5511	Strobe
Faraday	5512	Strobe
Faraday	5516	Strobe
Faraday	5517	Strobe
Faraday	5518	Strobe
Faraday	5519	Strobe
Faraday	5521	4” Square Sync Strobe
Faraday	5522	4” Square Sync Strobe
Faraday	6120	Horn
Faraday	6140	Horn
Faraday	6223	Horn

Manufacturer	Model	Type
System Sensor	SS2415ADA	Strobe
System Sensor	SS2475ADA	Strobe
System Sensor	PS2415ADA	Mini-Horn/Strobe
System Sensor	PS241575ADA	Mini-Horn/Strobe
System Sensor	PS24110ADA	Mini-Horn/Strobe
System Sensor	PS2475ADA	Mini-Horn/Strobe
Wheelock	46T-G4-24-R	Bell
Wheelock	46T-G6-24-R	Bell
Wheelock	46T-G10-24-R	Bell
Wheelock	46T-G6-24-WS-24-HF-R	Strobe/Bell
Wheelock	46T-G10-24-WS-24-HF-R	Strobe/Bell
Wheelock	46T-G6-24-WH-24-HF-R	Strobe/Bell
Wheelock	46T-G10-24-WH-24-HF-R	Strobe/Bell
Wheelock	7001T-12\24-W-FR	Strobe Horn
Wheelock	7002T-12\24-W-FR	Strobe Horn
Wheelock	AES-DL1-R	Multitone Horn
Wheelock	AES-EL1-R	Multitone Horn
Wheelock	AES-DL1-WS-24-VF-R	Multitone Horn
Wheelock	AES-EL1-WS-24-VF-R	Multitone Horn
Wheelock	AES-DL1-WH-24-VF-R	Multitone Horn
Wheelock	AES-EL1-WH-24-VF-R	Multitone Horn
Wheelock	AES-DL1-WM-24-VF-R	Multitone Horn
Wheelock	AES-EL1-WM-24-VF-R	Multitone Horn
Wheelock	AH-24-R	Horn
Wheelock	AMT-12\24-R	Strobe Horn
Wheelock	AMT-24-LS-VFR	Strobe Horn
Wheelock	AMT-24-LSM-VFR	Strobe Horn
Wheelock	AMT-24-IS-VFR	Strobe Horn
Wheelock	AS-2415-VFR	Strobe Horn
Wheelock	AS-241575-VFR	Strobe Horn
Wheelock	AS-2430-VFR	Strobe Horn
Wheelock	AS-2475-VFR	Strobe Horn
Wheelock	AS-24110-HFR	Strobe Horn
Wheelock	SM-12\24-R	Strobe Horn Controller
Wheelock	DSM-12\24-R	Strobe Horn Controller
Wheelock	CF-BF1	Chime
Wheelock	CF-BF1-R	Chime
Wheelock	CH-CF1	Chime
Wheelock	CH-CF1-R	Chime
Wheelock	CH-CF1-W	Chime

Manufacturer	Model	Type
Wheelock	LSM-24-VFR	Remote Strobe
Wheelock	LS1M-24-VFR	Remote Strobe
Wheelock	LS3M-24-VFR	Remote Strobe
Wheelock	LSPM-24-VFR	Remote Strobe
Wheelock	MS-24-VFR	Remote Strobe
Wheelock	MS1-24-VFR	Remote Strobe
Wheelock	MS3-24-VFR	Remote Strobe
Wheelock	MSP-24-HFR	Remote Strobe
Wheelock	MB-G6-24-R	Motor Bell
Wheelock	MB-G10-24-R	Motor Bell
Wheelock	MBS-G6-24-W-HF-R	Motor Bell with Strobe
Wheelock	MBS-G10-24-W-HF-R	Motor Bell with Strobe
Wheelock	MIZ-24-R	Mini-Horn
Wheelock	MIZ-24-W	Mini-Horn
Wheelock	MIZ-24-LS-VFR	Mini-Horn/Strobe
Wheelock	MIZ-24-LSM-VFR	Mini-Horn/Strobe
Wheelock	MIZ-24-MS-VFR	Mini-Horn/Strobe
Wheelock	MIZ-24-HSW-HFR	Mini-Horn/Strobe
Wheelock	MIZ-24-IS-VFR	Mini-Horn/Strobe
Wheelock	MIZ-24-WS-VF-R	Mini-Horn/Strobe
Wheelock	MIZ-24-WS-VF-W	Mini-Horn/Strobe
Wheelock	MIZ-24-WH-VF-W	Mini-Horn/Strobe
Wheelock	MIZ-24-WM-VF-W	Mini-Horn/Strobe
Wheelock	MT-12/24-R	Strobe Horn
Wheelock	MT-24-LS-VFR	Strobe Horn
Wheelock	MT-24-LSM-VFR	Strobe Horn
Wheelock	MT-24-MS-VFR	Strobe Horn
Wheelock	MT-24-IS-VFR	Strobe Horn
Wheelock	MT-24-SL-VFR	Strobe Horn
Wheelock	MT-24-SLM-VFR	Synch. Multitone Strobe
Wheelock	MT-24-WM	Strobe
Wheelock	MT-24-WM-VFR	Horn
Wheelock	RS-2415-HFR	Strobe
Wheelock	RSP-2415-VFR	Strobe
Wheelock	RS-241575-VFR	Strobe
Wheelock	RSP-241575-VFR	Strobe
Wheelock	RS-2430-VFR	Strobe
Wheelock	RS-2430-HFR	Strobe
Wheelock	RS-2475-VFR	Strobe

Appendix B
Word and Special Characters Lists

This section contains tables of programmable words or special characters that may be used for device, module, and zone names or phone numbers.

B.1 Name Library

The IntelliKnight 5820 has a built-in library (or list) of 120 9-character words that are available for you to select for naming points, zones, and groups. You can add up to 136 of your own 9-character words to the library which will then be available to select (see Table B-2).

Table B-1: Description Name Library

Word#	Text	Word#	Text	Word#	Text	Word#	Text
W000	(blank)	W031	DISASTER	W062	LOWER	W093	SOUNDER
W001	1ST	W032	DOCK	W063	MAIN	W094	SOUTH
W002	2ND	W033	DOOR	W064	MAN_PULL	W095	SPRINKLER
W003	3RD	W034	DRILL	W065	MANUFACT	W096	STAIRWAY
W004	4TH	W035	DUCT	W066	MIDDLE	W097	STORE_RM
W005	ACKNOWLDG	W036	EAST	W067	MODULE	W098	STROBE
W006	ACTIVE	W037	ELEC_RM	W068	MONITOR	W099	SUPERVSY
W007	ALARM	W038	ELEVATOR	W069	NORTH	W100	SWITCH
W008	ALERT	W039	EMERGENCY	W070	NOTIF	W101	SYS_AUX1
W009	AUX_PWR	W040	ENTRANCE	W071	OFFICE	W102	SYS_AUX2
W010	AUXILIARY	W041	EVACUATE	W072	PAS_ACK	W103	SYSTEM
W011	BACK	W042	FAULT	W073	PATIENT	W104	TAMPER
W012	BASEMENT	W043	FIRE	W074	PHONE	W105	TEST
W013	BATTERY	W044	FIREDRILL	W075	PHOTO	W106	TORNADO
W014	BEAM	W045	FLOOR	W076	POINT	W107	TROUBLE
W015	BELL_CKT	W046	FLR	W077	PREALARM	W108	UNIT
W016	BOILER_RM	W047	FRONT	W078	PULLSTA	W109	UNUSED
W017	CAFE	W048	GARAGE	W079	REAR	W110	UPPER
W018	CENTER	W049	GAS	W080	RELAY	W111	VALVE
W019	CIRCUIT	W050	GROUP	W081	REMOTE	W112	WARNING
W020	CKT	W051	HALL	W082	RESET	W113	WATERFLOW
W021	CLASS_RM	W052	HAZARD	W083	RESTAURNT	W114	WEST
W022	COMBO	W053	HEAT	W084	RESETABLE	W115	WHSE
W023	COMPUTER	W054	HOOD	W085	RESTROOM	W116	WING
W024	CONSTANT	W055	HORN_CKT	W086	RM	W117	ZONE
W025	CONFRNCE	W056	HVAC	W087	ROOM	W118	ZN_AUX1
W026	CONTROL	W057	ION	W088	SAFE	W119	ZN_AUX2
W027	CONVENT	W058	KITCHEN	W089	SECURITY		
W028	CORRIDOR	W059	LEVEL	W090	SHIPPING		
W029	DAMPER	W060	LOBBY	W091	SILENCE		
W030	DETECTOR	W061	LOCAL	W092	SMOKE		

Silent Knight Fire Product Warranty and Return Policy

General Terms and Conditions

- All new fire products manufactured by Silent Knight after September 1, 1997 have a limited warranty period of 18 months from the date of manufacture against defects in materials and workmanship. See limited warranty statement for details.
- This limited warranty does not apply to those products that are damaged due to misuse, abuse, negligence, or have been modified in any manner whatsoever.

Repair and RA Procedure

- All products that are returned to Silent Knight for credit or repair require a RA (Return Authorization) number. Call Silent Knight Customer Service at 800-446-6444 or 612-493-6435 between 8:00 A.M. and 5:00 P.M. CST, Monday through Friday to obtain a return authorization number. Silent Knight Technical Support is available at 800-328-0103 between 8:00 A.M. and 7:00 P.M. CST, Monday through Friday.
- RA number must be prominently displayed on the outside of the shipping box. See return address example under Advanced Replacement Policy.
- All products returned to Silent Knight must be sent freight pre-paid. After product is processed, Silent Knight will pay for shipping product back to customer.
- Return the Silent Knight product circuit board only. Products that are returned in cabinets will be charged an additional $20 to cover the extra shipping and handling costs over board only returns. Do not return batteries. Silent Knight has the authority to determine if a product is repairable. Products that are deemed un-repairable will be returned to the customer.
- Product that is returned that has a board date code more than 18 months from date of manufacture will be repaired and the customer will be assessed the standard Silent Knight repair charge for that model.
- A detailed description of the problem should be included with each return.

Advanced Replacement Policy

- Silent Knight offers an option of advance replacement for fire product printed circuit boards that fail during the 18 month warranty period.
- For advance replacement of a defective board call Silent Knight at 800-446-6444 or 612-493-6435 to obtain a RA (Return Authorization) number and request advanced replacement.
- Customers must use a MasterCard or Visa credit card to get an advance replacement.